THE AMERICAN JOURNAL *of* PSYCHIATRY

VOLUME 115
NUMBER 12
JUNE 1959

Official Journal of
THE AMERICAN PSYCHIATRIC ASSOCIATION

RATED FIRST
FOR TRANQUILIZING EFFECT[1]

IN HOSPITALIZED PSYCHIATRIC PATIENTS, Miltown has demonstrated great usefulness in relieving anxiety and tension.[1-5]

In tranquilizing effect Miltown has been found superior to phenothiazine derivatives and Rauwolfia products.[1] However, its anti-psychotic effect is less pronounced than that of the other drugs.[1]

On the other hand, combined with an effective anti-psychotic preparation, Miltown becomes "extremely valuable in alleviating the overactivity, tension, excitement and anxiety of the psychotic."[1]

An added advantage of Miltown is relaxation of skeletal muscle, not obtained with most other tranquilizers.

References: 1. Barsa, J. A.: Am. J. Psychiat. 115:79, July 1958. 2. Graffagnino, P. N., Friel, P. B. and Zeller, W. W.: Connecticut M. J. 21:1047, Dec. 1957. 3. Hollister, L. E., Elkins, H., Hiler, E. G. and St. Pierre, R.: Ann. New York Acad. Sc. 67:789, May 9, 1957. 4. Pennington, V. M.: Am. J. Psychiat. 114:257, Sept. 1957. 5. Tucker, K. and Wilensky, H.: Am. J. Psychiat. 113:698, Feb. 1957.

Available in 400 mg. scored and 200 mg. sugar-coated tablets. Also available as MEPROSPAN* (200 mg. meprobamate *continuous release* capsules).

*TRADE-MARK

Miltown®

meprobamate (Wallace)

THE AMERICAN JOURNAL OF PSYCHIATRY

VOLUME 115 JUNE 1959 No. 12

Published by
THE AMERICAN PSYCHIATRIC ASSOCIATION
THE DARTMOUTH PRINTING COMPANY
HANOVER, N. H.

AMERICAN JOURNAL OF PSYCHIATRY

INFORMATION FOR CONTRIBUTORS

Manuscripts—The *original* manuscripts of papers read at the annual meetings of the Association should be deposited with the Secretary during the meetings, or sent to the New York office promptly afterward. Do not deposit carbon copies.

Papers read at the annual meetings become the property of the Association. Not all papers read, however, can be published in the JOURNAL, and authors wishing to publish in other vehicles will first secure from the Editor the release of their manuscripts.

Papers will not be accepted for the annual program if they have been previously read at other meetings or if they have been already published.

Papers contributed during the year (not on the annual program) should be sent to the Editor, Dr. Clarence B. Farrar, 216 St. Clair Avenue West, Toronto 5, Ontario, Canada.

Style—Manuscripts should be typewritten, double spaced, on one side of the paper. They must be prepared in conformity with the general style of The American Journal of Psychiatry. Retain a carbon copy of manuscript and duplicates of tables, figures, etc., for use should the originals be lost in the mails.

Multiple Authorship—The number of names listed as authors should be kept to a minimum, others collaborating being shown in a footnote.

Illustrations—Authors will be asked to meet printer's costs of reproducing illustrative material. Copy for illustrations cannot be accepted unless properly prepared for reproductions. Wherever possible, drawings and charts should be made with India ink for photographic reproduction as zinc etchings. Photographs for halftone reproduction should be glossy prints. Illustrations should be as small as possible without sacrificing important detail. Redrawing or preparing illustrations to make them suitable for photographic reproduction will be charged to author.

Authors' Corrections in Proofs—Corrections, additions or deletions made by authors are to be charged to them. These alterations are charged on a time basis at the rate of $7.00 per hour. Proper editing of original manuscript is important to avoid the expense of correction.

Tables—Tables should be typed on separate sheets. Tables are much more expensive to set than text material and should be used only where necessary to clarify important points. Authors will be asked to defray cost of excessive tabular material.

References—References should be assembled according to author in a terminal bibliography, referred to in text by numbers in parentheses. Bibliographical material should be typed in accordance with the following style for journals and books respectively:

1. Vander Veer, A. H., and Reese, H. H.: Am. J. Psychiat., **95**: 271, Sept. 1938.
2. Hess, W. R.: Diencephalon. New York: Grune & Stratton, 1954.

Abbreviations should conform to the style used in the Quarterly Cumulative Index Medicus.

The American Journal of Psychiatry, formerly The American Journal of Insanity, the official organ of The American Psychiatric Association, was founded in 1844. It is published monthly, the volumes beginning with the July number.

The subscription rates are $12.00 to the volume: Canadian subscriptions $12.50; foreign subscriptions, $13.00, including postage. Rates to medical students, junior and senior internes, residents in training during their first, second, or third training year, and also to graduate students in psychology, psychiatric social work, and psychiatric nursing, $5.00 (Canada $5.50). Single issues, $1.25.

Office of Publication, 10 Allen St., P.O. Box 832, Hanover, N. H.

Business communications, remittances and subscriptions should be addressed to The American Psychiatric Association, 10 Allen St., P.O. Box 832, Hanover, N. H., or to 1270 Avenue of the Americas, New York 20, N. Y.

Editorial communications, books for review, and exchanges should be addressed to the Editor, Dr. Clarence B. Farrar, 216 St. Clair Avenue West, Toronto 5, Ontario, Canada.

Second class postage paid at Hanover, New Hampshire.

JUNE CONTENTS 1959

PSYCHIATRIC STUDY OF A MASS MURDERER. *James A. V. Galvin and John M. MacDonald* 1057

POST-ENCEPHALITIC BEHAVIOR DISORDER—A FORGOTTEN ENTITY: A REPORT OF 100 CASES. *Sol Levy* 1062

A CRIMINOLOGIST LOOKS AT PRIVILEGE. *Austin MacCormick* 1068

THE PROBLEM OF PRIVILEGE: HISTORICAL AND JURIDICAL SIDELIGHTS. *Henry Root Stern, Jr.* 1071

GROWTH OF PSYCHIATRISTS DURING AND AFTER RESIDENCY TRAINING: AN OBJECTIVE EVALUATION. *Herbert C. Modlin, William Benjamin, S. Burritt Lacy, Bernard H. Hall and Joseph Satten* 1081

CURRENT THEORETICAL CONCEPTS IN PSYCHOSOMATIC MEDICINE. *Harold I. Kaplan and Helen S. Kaplan* 1091

DEVELOPMENTAL AND SEXUAL FACTORS IN WOMEN: A COMPARISON BETWEEN CONTROL, NEUROTIC AND PSYCHOTIC GROUPS. *George Winokur, Samuel B. Guze, and Eric Pfeiffer* 1097

ON THE DYNAMICS OF THE MANIC-DEPRESSIVE PERSONALITY. *Robert W. Gibson, Mabel B. Cohen, and Robert A. Cohen* 1101

SYMPOSIUM ON SPACE PSYCHIATRY. *Compiled by Robert L. Williams* 1108

CLINICAL NOTES:

A Rapid Urine Color Test For Trifluprom azine (Vesprin). *Fred M. Forrest, Irene S. Forrest and Aaron S. Mason* 1114

Clinical Experiences With a New Phenothiazine. *Herman C. B. Denber, Paul Rajotte and Dorothy Kauffman* 1116

Preliminary Report on Imipramine (Tofranil). *Paul E. Feldman* 1117

Psychiatric Response of Geriatric-Psychiatric Patients to Mellaril (TP-21 Sandoz). *Leopold Judah, Oddist Murphree and Lloyd Seager* 1118

Catatonic-Like States Following Phenothiazine Therapy. *Rupert H. May* 1119

The Usefulness and Effectiveness of Equanil ® in Children. *Kurt C. Rautt* 1120

Experiences with P-M, G-M Succinylcholine Modified Electroconvulsive Therapy. *Allan Z. Schwartzberg* 1121

CASE REPORTS:

Acute Toxic Hypertension Due to Triflupromazine: Report of a Case. *Harry F. Darling* 1123

Death Due to Massive Overdose of Meprobamate. *Isadore Kamin and Donald A. Shaskan* 1123

Prolonged Hypotension Due to Chlorpromazine. *W. J. Stanley* 1124

COMMENT:

International Conference on the Insulin Treatment in Psychiatry 1127

NEWS AND NOTES 1128

ANNUAL INDEX:

Subject Index 1130

Author Index 1143

THE AMERICAN PSYCHIATRIC ASSOCIATION

OFFICERS 1958-1959

President: FRANCIS J. GERTY
Vice President: DAVID C. WILSON
Secretary: C. H. HARDIN BRANCH

President-Elect: WILLIAM MALAMUD
Vice President: WILLIAM B. TERHUNE
Treasurer: ROBERT H. FELIX

COUNCILLORS

For 3 years
HARRY C. SOLOMON
LAWRENCE KOLB, JR.
DANA L. FARNSWORTH
ROBERT T. MORSE

For 2 years
FRANCIS J. BRACELAND
ADDISON M. DUVAL
GEORGE TARJAN
JACQUES GOTTLIEB

For 1 year
NORMAN Q. BRILL
DONALD G. MCKERRACHER
HOWARD P. ROME

EXECUTIVE COMMITTEE

FRANCIS J. GERTY
WILLIAM MALAMUD
C. H. HARDIN BRANCH
ROBERT H. FELIX
HARRY C. SOLOMON
ADDISON M. DUVAL

Ex-Officio
DAVID C. WILSON
WILLIAM B. TERHUNE

ASSEMBLY OF DISTRICT BRANCHES

WALTER H. OBENAUF (Speaker)
ALFRED AUERBACK (Deputy Speaker)
JOHN R. SAUNDERS (Recorder)

MEDICAL DIRECTOR

MATTHEW ROSS, 1700-18th Street, N. W., Washington 9, D. C.

EXECUTIVE ASSISTANT

AUSTIN M. DAVIES, 1270 Avenue of the Americas, New York 20, N. Y.

CHAIRMEN OF COMMITTEES

CONSTITUTIONAL COMMITTEES

Arrangements
THEODORE DEHNE
LAUREN SMITH

Board of Tellers
EVELYN IVEY

Membership
MANUEL M. PEARSON

Nominating
D. EWEN CAMERON

STANDING COMMITTEES (Internal Activities of the Association)

Budget
JACK R. EWALT

Constitution and By-Laws
HENRY A. DAVIDSON

Ethics
MESROP TARUMIANZ

House Committee
ADDISON M. DUVAL

Program
JOHN DONNELLY

STANDING COMMITTEES (Technical Aspects)

FRANK J. CURRAN
Coordinating Chairman

Aging
EWALD W. BUSSE

Child Psychiatry
J. FRANKLIN ROBINSON

History of Psychiatry
J. SANBOURNE BOCKOVEN

Medical Education
GEORGE C. HAM

Mental Deficiency
HOWARD BAIR

Public Health
JOHN BLASKO

Rehabilitation
BENJAMIN SIMON

Research
MILTON GREENBLATT

Therapy
HENRIETTE R. KLEIN

STANDING COMMITTEES (Professional Standards)

WILFRED BLOOMBERG
Coordinating Chairman

Legal Aspects of Psychiatry
LOUIS P. GENDREAU

Liaison with American Academy of General Practice
ROBERT MATTHEWS

Liaison with American Hospital Association
RAYMOND WAGGONER

Mental Hospitals
JOSEPH E. BARRETT

Nomenclature and Statistics
MOSES M. FROHLICH

Private Practice
JOHN M. COTTON

Psychiatric Nursing
GRANVILLE L. JONES

Psychiatric Social Work
MAURICE R. FRIEND

Relations with Psychology
JOEL HANDLER

Standards and Policies of Hospitals and Clinics
HARVEY J. TOMPKINS

STANDING COMMITTEES (Community Aspects)

PAUL V. LEMKAU
Coordinating Chairman

Academic Education
C. DOUGLAS DARLING

Cooperation with Leisure Time Agencies
ALEXANDER R. MARTIN

Disaster and Civil Defense
EDWARD J. KOLLAR

Industrial Psychiatry
RALPH T. COLLINS

International Relations
LOTHAR B. KALINOWSKY

National Defense
BENJAMIN H. BALSER

Preventive Psychiatry
HENRY H. WORK

Public Information
HENRY P. LAUGHLIN

Religion and Psychiatry
EARL LOOMIS

SPECIAL COMMITTEE

Certification of Mental Hospital Administrators
WINFRED OVERHOLSER

working together

THE PSYCHIATRIST / THE PATIENT

—mentally alert and responsive to therapy

AND

Trilafon

perphenazine

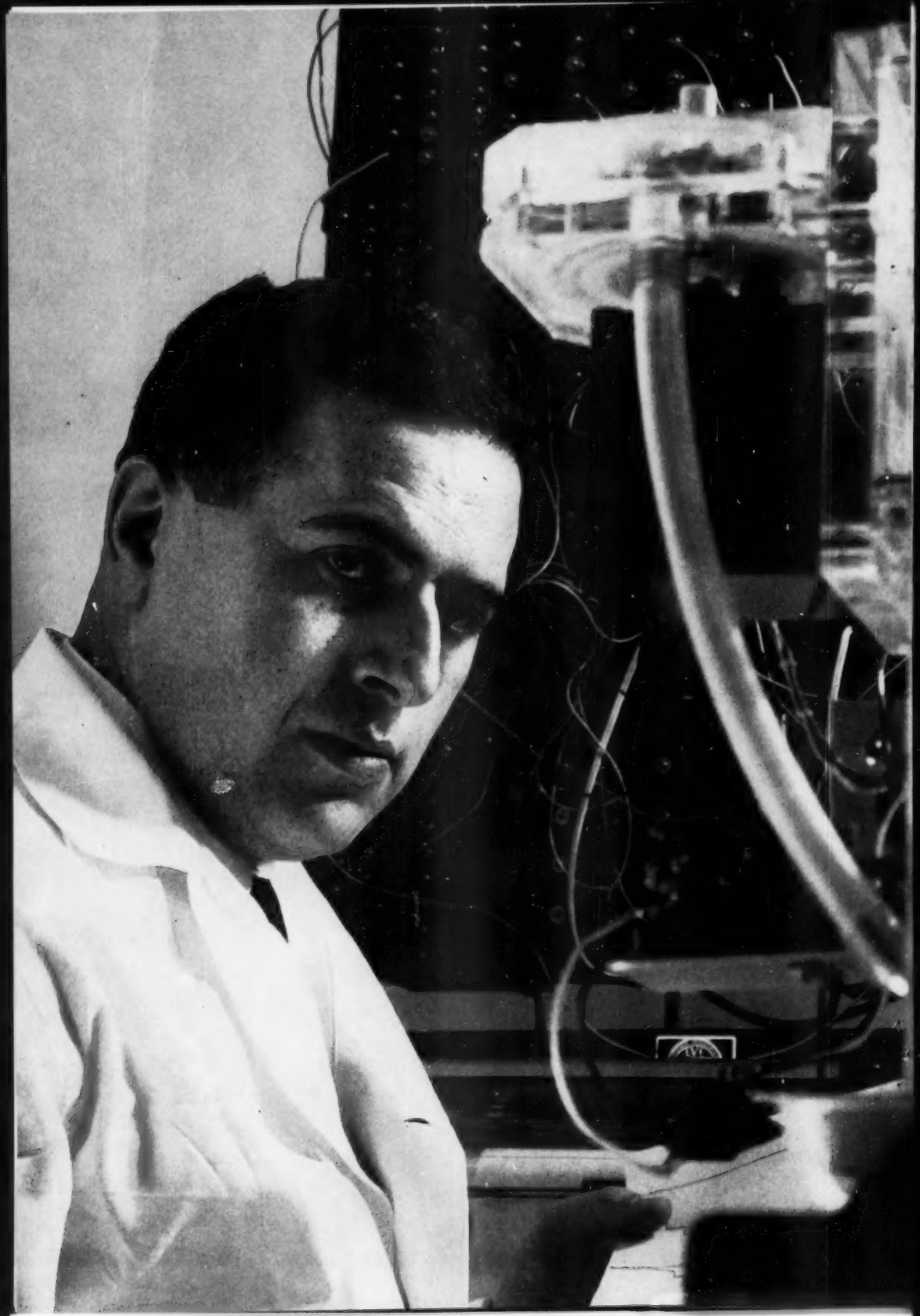
for greater access to disturbed minds

Dosage: Depending on the severity of the condition and individual response, 8 to 16 mg. two to four times daily. Consult Schering literature for other indications, as well as for details on precautions and contraindications.

Packaging: Tablets of 4 mg. and 8 mg., bottles of 50 and 500; 16 mg., bottle of 500. REPETABS,® 8 mg.—4 mg. in the outer layer and 4 mg. in the timed-action inner core, bottles of 30 and 100. TRILAFON® Injection—5 mg., ampul of 1 cc., boxes of 6 and 100; 10 cc. vial, 5 mg./cc., boxes of 1 and 10. TRILAFON Concentrate—16 mg./5 cc., bottle of 4 oz., with graduated dropper. TRILAFON Suppositories—4 and 8 mg., boxes of 6.

SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

TR-J-849



Problems are for solving

Irving Geller, Ph.D., is a psychologist with a puzzle and a paradox. The puzzle is the old one of why man behaves as he does. The paradox is that some of the most likely answers come from animals. Dr. Geller teaches rats and monkeys to press levers for intermittent rewards of food—and then exhaustively plots and interprets what happens.

Photographed here against the maze of instruments in his basic-research laboratory at Wyeth, Dr. Geller can assure you that things *do* happen. Animals readily learn, for example, that the faster they press the levers the higher the frequency of reward. And, without fatigue, they can learn patterns of payoff that, for sheer complexity, rival those of a slot machine.

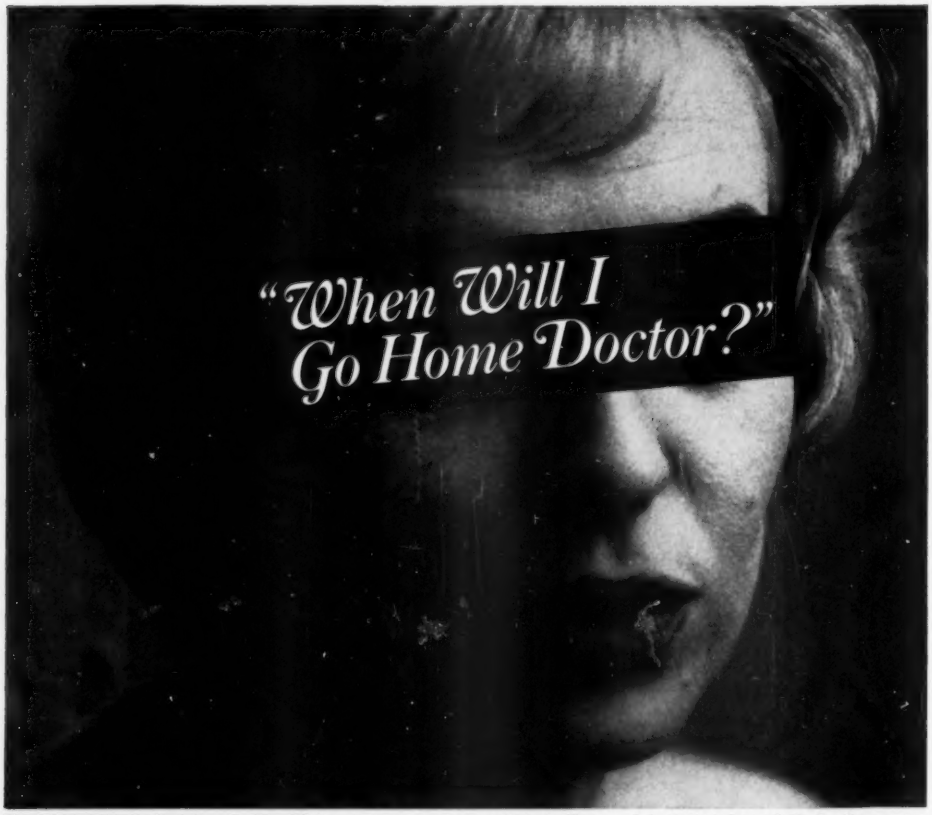
In one basic pattern, Dr. Geller's problem-solving animals must learn to pause for at least 20 seconds between lever-pressings to gain their rewards. Most of them quickly see through the problem. They are then ready for more difficult conditions, some of them advanced enough to challenge human subjects.

Using these techniques and ingenious arrangements of timers, relays, signals, and recording graphs, Dr. Geller and his aides study ingestive behavior, emotions, reactions to conflict and stress, avoidance phenomena, and the modifications introduced by psychotropic agents. Important to all behavioral sciences, the findings are objective, uninfluenced by subjective colorations of the observers.

Investigations like these strengthen man's understanding of himself. Dr. Geller's work has promising applications to society and medicine. Like all basic research at Wyeth, its purpose is to add to knowledge as an expression of our responsibility to physicians.

Wyeth®

Philadelphia 1, Pa.



YOUR ANSWER MAY BE "I DON'T KNOW" OR "VERY SOON." VESPRIN MAY MAKE THE DIFFERENCE

Vesprin is an agent of established efficacy and demonstrated superiority for the management of psychotic patients. In schizophrenia, manic states, and psychoses associated with organic brain disease, Vesprin controls intractable behavior patterns making patients more accessible to psychotherapy. Excitement, panic, delusions, hostile behavior are moderated to permit early insight for rapid progress into resocialization and rehabilitation. Not only is Vesprin your drug of choice for initial therapy, but it has proved effective in patients who failed to respond to other phenothiazines.

Vesprin does not oversedate your patients into sleepiness, apathy or lethargy — and drug-induced agitation is minimal.[1] It is relatively free from side effects.[1,2] Skin eruptions, photosensitivity or hyperthermia have rarely been reported. Individual dosage levels are easily established. Intramuscular injection causes no pain or tissue irritation. Vesprin often brings improvement in chronically disturbed patients refractory to shock therapies and other drugs.[3,4]

VESPRIN

SQUIBB TRIFLUPROMAZINE HYDROCHLORIDE

. . a unique halogenated phenothiazine for the management of schizophrenia, manic states, psychoses associated with organic brain disease, senile psychoses, and primary behavior problems in children.

Dosage: Usual initial dose, 100 to 150 mg. daily, increased or decreased according to patient response. See literature. Supply: Tablets: 10, 25 and 50 mg., in bottles of 50 and 500. Capsules: 100 mg. in bottles of 50 and 500. Emulsion: 30 cc. dropper bottles and 120 cc. bottles (10 mg./cc.). Parenteral Solution: 1 cc. multiple dose vial (20 mg./cc.) and 10 cc. multiple dose vial (10 mg./cc.). Vesprin Injection Unimatic (15 mg. in 0.75 cc.).

SQUIBB Squibb Quality — the Priceless Ingredient

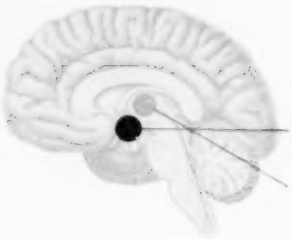
VESPRIN® AND UNIMATIC® ARE SQUIBB TRADEMARKS

1. Goldman, D.: Am. J. M. Sc. 235:67 (Jan.) 1958. 2. Minehouse, W. G., and Freed, J. E.: Monographs on Therapy 3:32 (May) 1958. 3. Leger, Y.: Union Med. Canada 87:831 (July) 1958. 4. Brackman, N. S.; Saunders, J. C., and Kline, N. S.: Monographs on Therapy 3:24 (May) 1958.

A Psychotropic Agent . . .

To control both Anxiety and Agitation

Anxiety and agitation, although related, may differ in their etiology. In psychiatric practice, therefore, it has frequently been found advantageous to use multiple agents and therapies to produce maximum therapeutic benefits.



PROZINE, a new psychotropic agent, offers dual mechanism of action. Its sites of action are:

1. the hypothalamic area[1]
2. the thalamus and interneuronal pathways of the central nervous system.[2]

PROZINE alleviates anxiety and psychomotor agitation.

PROZINE is indicated as adjunctive treatment to psychotherapy and other therapeutic measures in patients suffering many varied mental and emotional disturbances.

PROZINE controls behavior disorders associated with psychiatric illness expressed by symptoms of confusion, belligerence, combativeness, delusions, insomnia, untidiness, hyperactivity, negativism, phobic reactions, and depressive states. PROZINE is effective in the management of chronic alcoholism and behavior problems of children, adolescents, and the senile patient.

*Trademark

PROZINE*

meprobamate and promazine hydrochloride, Wyeth

Specific Control through Dual Action

with minimal side-effects

SUMMARY OF CLINICAL RESULTS[3,4,5]

Of 422 patients displaying primary emotional disturbances, chiefly psychoneurotic, 82 per cent showed significant improvement. Approximately 20 per cent of these patients were hyperactive, aggressive, difficult-to-control children and adolescents. Fifteen per cent were alcoholics.

Of 227 psychotic patients, 63 per cent showed significant symptomatic improvement. The diagnoses in this group included schizophrenia and affective disorders including manic-depressive psychoses.

Of 323 patients with diagnosed organic disease and associated emotional disturbance, 81 per cent showed significant improvement in the emotional component of their illness. The organic diseases included gastrointestinal, cardiovascular, dermatological, musculoskeletal, endocrine, menopausal and allergic disorders; carcinoma, chronic brain syndrome; also included were disturbed mentally retarded patients.

In 972 patients, side-effects occurred in only 3.7 per cent. Chief among these was lethargy in 9 patients.

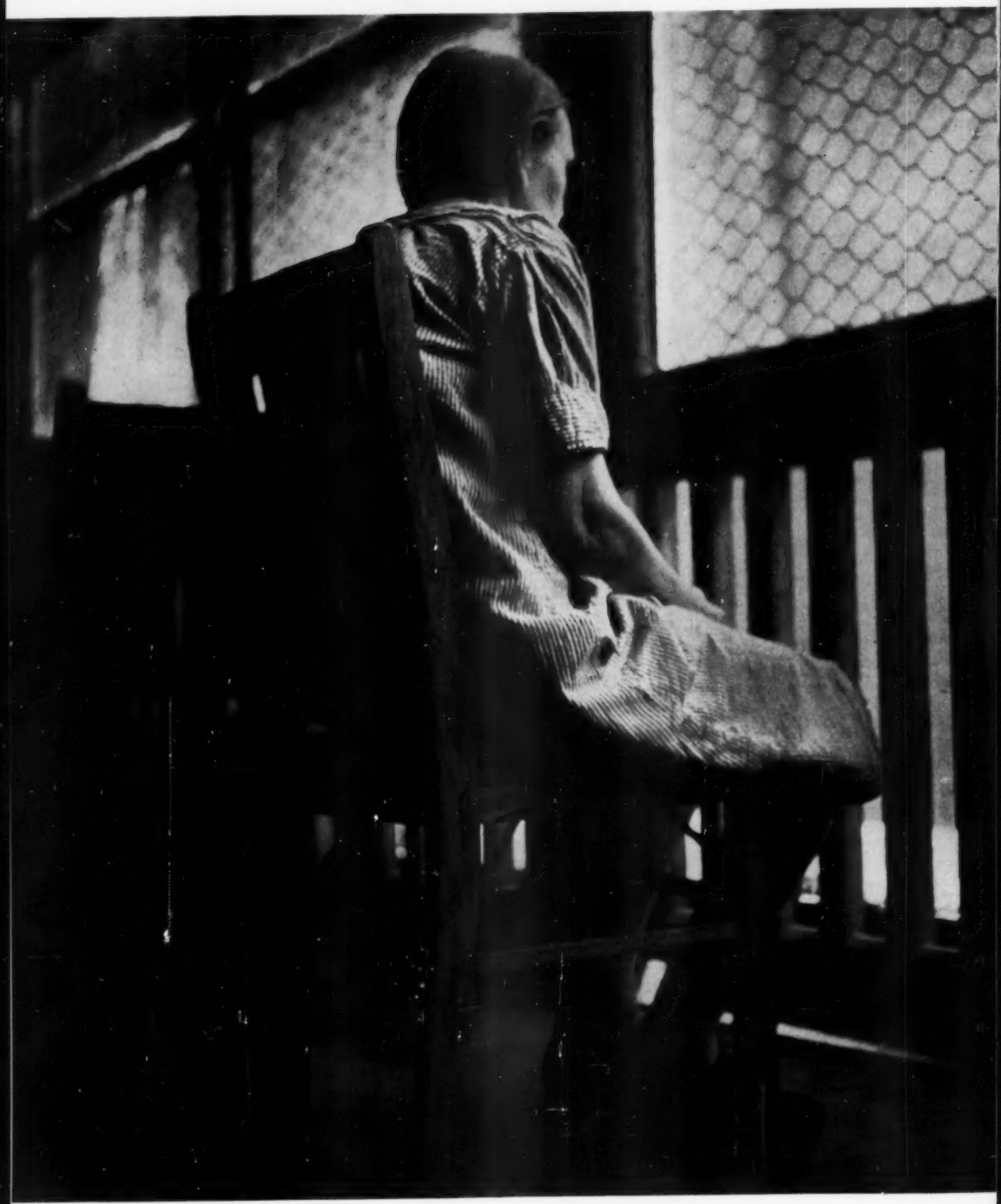
Supplied: Bottles of 50 green-and-white capsules, each containing 200 mg. meprobamate and 25 mg. promazine hydrochloride.

Comprehensive literature is available

1. Rinaldi, F., and Himwich, M.E.: Dis. Nerv. System *16*:133-141 (May) 1955.
2. Berger, F.M.: J. Pharmacol. & Exper. Therap. *112*:413-423 (Dec.) 1954.
3. Ehrmantraut, W., et al.: Presented as a Scientific Exhibit, District of Columbia Medical Society Convention, Nov. 24-26, 1958.
4. Parks, R.V.: Internat. Rec. M. *171*:678-683 (Nov.) 1958.
5. Case reports on file at Wyeth Laboratories.

Wyeth
Philadelphia 1, Pa.

NEW STELAZINE* EFFECTIVE



IN CHRONIC PSYCHOTIC PATIENTS REFRACTORY TO OTHER THERAPIES

"It is obvious that we have in ['Stelazine'] a very effective drug which often produces results where other treatment has failed."

Gunn, D.R.: The Role of Trifluoperazine in the Treatment of Refractory Mental Patients, in Trifluoperazine: Clinical and Pharmacological Aspects, Philadelphia, Lea & Febiger, 1958, pp. 47-53.

"... the majority of patients treated—formerly considered practically hopeless—are now in some way more easily managed on the ward."

Klimczynski, J.J.T.: Treatment of Chronically Ill Psychotic Patients with Trifluoperazine: A Preliminary Report, *ibid.*, pp. 101-112.

"The relatively low number of failures of treatment, even in those who have been sick for a long time, must be considered almost as significant as the high proportion of good recoveries."

Goldman, D.: Clinical Experience with Trifluoperazine: Treatment of Psychotic States, *ibid.*, pp. 71-86.

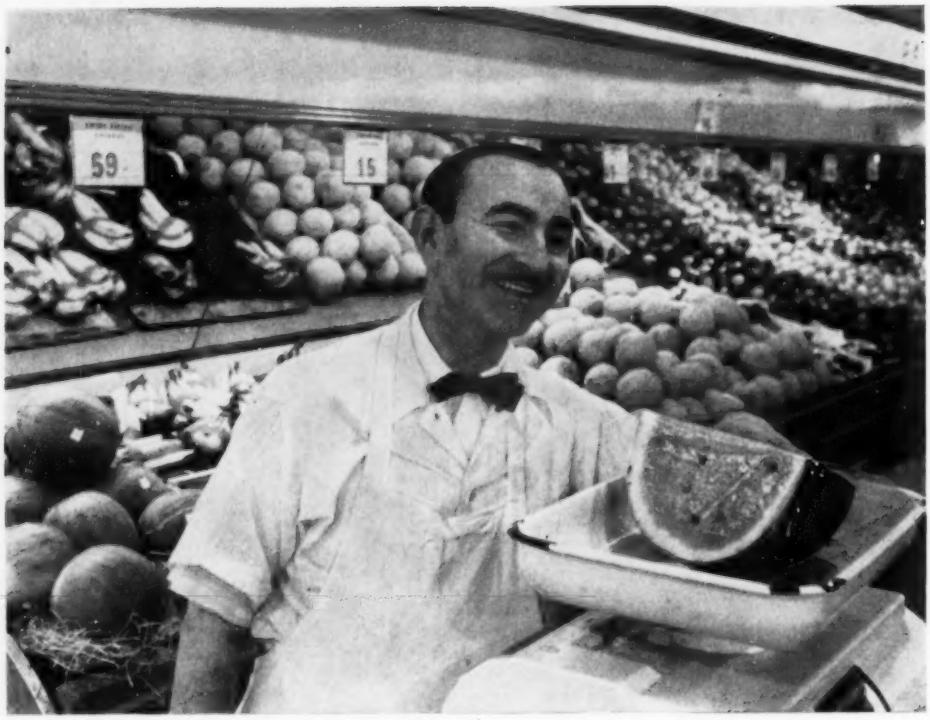
Available: Tablets, 2 mg., 5 mg. and 10 mg.
Multiple dose vials, 10 cc. (2 mg./cc.)

Literature available on request.

Smith Kline & French Laboratories (SKF) **leaders in psychopharmacology**

*Trademark for trifluoperazine, S.K.F.

(10-[3-(1-methyl-4-piperazinyl)-propyl]-2-trifluoromethylphenothiazine)



the epileptic... 1959

The happiness of work, of laughter, of *belonging*—priceless possessions, these, for the epileptic patient. Yet, how recently were these freedoms won! Today, his future is more hopeful than ever before, thanks in part to a finer and growing knowledge of the disease—and the more effective antiepileptic drugs. Presented here are five distinguished anticonvulsants that will help you give your patients that most precious of all gifts: a normal life.

PEGANONE®
(Ethotoin, Abbott)

A hydantoin of exceptionally low toxicity for *grand mal* and psychomotor seizures.

PHENURONE®
(Phenacemide, Abbott)

Often effective where other therapy fails in *grand mal, petit mal,* psychomotor and mixed seizures.

GEMONIL®
(Metharbital, Abbott)

Relatively non-toxic, for *grand mal, petit mal,* myoclonic and mixed seizures symptomatic of organic brain damage.

TRIDIONE®
(Trimethadione, Abbott)

PARADIONE®
(Paramethadione, Abbott)

Homologous agents for symptomatic control of *petit mal,* myoclonic and akinetic seizures.

902065

ANTICONVULSANTS BY ABBOTT

now... long-term tranquilizer therapy...without parkinsonism-like side effects

TRANQUILIZER-INDUCED PARKINSONISM RELIEVED BY 'KEMADRIN'

In the treatment of mental disorders, reduction or discontinuance of ataractic drugs because of extra-pyramidal dysfunction is often undesirable since the beneficial pharmacodynamic effect is also reduced or eliminated. A number of clinicians report that the symptoms of parkinsonism are indicators of the therapeutic effect of the phenothiazine or rauwolfia compounds.

"*. . . Kemadrin has a definite place in the control and management of drug-induced parkinsonism. In many cases it appears to be much more effective than the currently used antiparkinsonian drugs.*"

Konchegul, L.: The Use of Kemadrin in the Treatment of Drug-induced Parkinsonism. M.Ann.of D.C. *27*:405 (Aug.) 1958.

'KEMADRIN'® brand

Procyclidine Hydrochloride

Available as: 5 mg., scored tablets. Bottles of 100 and 1000.

Complete literature available on request.

BURROUGHS WELLCOME & CO. (U. S. A.) INC., Tuckahoe, N. Y.

PSYCHIATRIC STUDY OF A MASS MURDERER [1]

JAMES A. V. GALVIN, M. D. AND JOHN M. MACDONALD, M. D.[2]

On November 1, 1955, eleven minutes after leaving Denver, a 4-engine airliner exploded and crashed with the loss of 44 lives. Two weeks later a 23-year-old man confessed that he had placed in his mother's luggage, a time bomb consisting of a timer, hot shot battery, blasting caps and 25 sticks of dynamite. Following a plea of insanity, he was committed to hospital for psychiatric examination. Friendly and cooperative, yet somewhat reserved in his manner, he volunteered that he had no intention of faking insanity although he thought it would be easy for him to do this by saying that he heard voices. Indeed he stated that it had been suggested to him that he should say that he had seen visions and that he acted under instructions from God.

He claimed innocence and said that he had never had any wish to kill his mother. He knew it was wrong, both morally and legally, to blow up an aircraft and he would never do such a thing. A variety of reasons was given to explain his confession. He could not stand the questioning; when he told the truth and was not believed, he figured "to heck with it"; he was manhandled and threatened with bodily injury. At his subsequent trial, there was no evidence of threats by F.B.I. agents. Indeed, the F.B.I. selected a man smaller than the patient to act as principal questioner.

Nothing untoward occurred prior to the tragedy. His mother who had been living with him decided to visit a relative in Alaska. He tried to persuade her to remain till Thanksgiving but without success. At the airport, it was found that her luggage was 37 pounds overweight. His mother wished to avoid the surcharge but the patient assured her that she would need all her luggage. On her request he took out 3 insurance policies, each with a different beneficiary. He fumbled this task and had to throw away 2 policies. The policies were to have been for $6,250 but by mistake he deposited extra coins in the machine for his policy thus giving it a value of $37,500.

After the plane left, he had dinner with his wife and child in the airport restaurant. During dinner he became nauseated and vomited in the rest-room. When he learned that the plane had crashed he cried till he did not have any tears left to cry. Although he denied having made any callous remarks about the plane crash, he did in fact, remark to his family one day, with reference to some shot-gun shells in his mother's luggage, "Can't you just see those shot gun shells going off in the plane every which way and the pilots and passengers and grandma jumping around."

On November 10, he told a comparative stranger that the center of the plane on which his mother had died had been blown to only small strips of metal. He went on to say how easy it would be to blow up a plane and estimated that it would require 2 gallons of nitroglycerine and a timing mechanism which could be placed in a suitcase and slipped on the carts which carry baggage to the planes. He mentioned the irony of the crash. If the plane had not taken off 20 minutes late it would have crashed in the mountains and no one would ever have suspected sabotage. (At that time the possibility of sabotage had been raised in the newspapers.)

On November 13, he was questioned by the F.B.I. and was arrested following his confession. During the interrogation, the F.B.I. offered to let him go back home and he had since asked himself a "million times" why he hadn't accepted the offer.

FAMILY HISTORY

The patient knew little about his father who left his mother when he was 18 months

[1] Read at the 114th annual meeting of The American Psychiatric Association, San Francisco, Calif., May 12-16, 1958.

[2] Medical Director and Assistant Medical Director, respectively, Colorado Psychopathic Hospital, Denver, Colo.

of age. His mother who had a daughter by a previous marriage then went to live with her mother and returned to work.

During the patient's childhood, she was very generous in providing toys and money for her children but spent little time with them. She appeared to have been quick tempered, somewhat domineering and not an affectionate mother. The patient was quick to defend her, but it was evident that he had felt rejected by her from an early age.

"We loved one another but she wasn't a person you could call 'mom.' She wanted you to call her by her Christian name. You couldn't put your arms around her. You couldn't show your affection like that to her. I always depended on her a lot. If she got mad at you she'd stay mad for 15 years."

Her gifts were accompanied by demands and whenever she caused particular feelings of anger, she would effectively prevent their expression and arouse a sense of guilt by some generous monetary gift. At the same time, she would play the role of a martyr. According to a relative, she was once found unconscious after a suicide attempt with drugs. There was no family history of psychosis.

PERSONAL HISTORY :

Little is known of his early development. Childhood neurotic traits included cruelty to animals, bed wetting and fear of being left alone. It was reported that he once set fire to a garage while playing with matches. When his grandmother died he was placed in an institution for fatherless boys where he remained from 6 to 11 years of age. Bed wetting which had occurred almost every night stopped almost immediately after he was sent to the institution. His adjustment there was not good and the school records noted that he felt his mother did not love him because she had put him in an institution. When he was 9 his mother married a wealthy rancher but she refused his repeated requests to be allowed to come home. Several times he ran away from the school to his stepfather's ranch but each time he was returned to the institution. At 11, he was caught stealing and the institution then insisted that his mother should look after him.

At 14 years of age, he left school to work on his stepfather's ranch. At 16 he enlisted in the Coast Guard. His mother aided him in his deception that he was 18 years of age. Within 6 months he went absent without leave and subsequently he was discharged from the service. "It seems that I gave the Commodore the wrong answer, because as soon as he and his hat came back to earth, I was sent back to New York and they asked me to stay in a Marine Hospital."

At the time of the neuropsychiatric examination he stated, "I just took a notion I'd get out of the service by going A.W.O.L. I was fed up with saying Yes sir, No sir, and getting punished for things that didn't seem very important. I had $200 and I went to New York, Chicago, Georgia, Washington, D. C. I was hitch-hiking. I had a lot of fun drinking, dancing, going to parties. I don't feel sorry about it, but I'm not happy about it; its just one of those things, but I don't want a bad conduct discharge. If I stay in the Coast Guard and don't get leave, I'll go over the hill again to see my mother."

He claimed that he was given 5 or 6 electric shock treatments while in hospital and was able to give a convincing description of EST. This claim was not confirmed by the Coast Guard records which stated : "This man is an exceedingly immature individual who has exhibited poor judgment and who tends to act on impulses. He is a dependent person, with strong ties to mother. He tolerates frustrations, even those in the normal course of work, very poorly. Other evidences of his poor judgment and impulsive behavior are to be seen in his sleeping on watch, stealing food while on watch, and returning to work drunk."

During the 2 years following his discharge from the Coast Guard, he held over 25 different jobs, principally in construction work and as a truck driver in various parts of the United States and Alaska. He attributed his frequent job changes to poor business conditions or unfair treatment by his boss. In March, 1951, he forged over 40 checks for a total value of approximately $4,500. He then flew to Seattle, purchased a car and travelled extensively. He was arrested in September, 1951, in Texas, after crashing through a road block at high speed and was sentenced to 60 days imprisonment for bootlegging and carrying a concealed weapon.

His true identity was discovered and he was returned to Denver to face trial for check forgery. Early in 1952, he was released on 5 year's probation upon condition

he repay $1800 during this period. His stepfather repaid the remaining $2500. In 1953, he married a girl he had met the previous year while taking courses in business administration at Denver University. Although he had been friendly with several girls prior to his marriage, this was the first girl he had "really cared for." "To me its the only thing that matters, its hard to describe. Some people take their wives for granted. I couldn't. If I came home and she wasn't there I had to find out right away where she was. I wanted to put her up on a shelf and not let anyone else touch her or see her." There were 2 children of the marriage.

When his stepfather died in October, 1954, his mother inherited over $90,000. She insisted on his returning to the university and reluctantly he agreed. In 1955, she purchased a drive-in for him and went to live with him. Although his mother had told him that he was to be in charge of the business, she interfered considerably in its management and there was increasing friction between them. During this year he became very irritable and short tempered. At the same time, he continued to be very dependent upon his mother. The drive-in was not a financial success and in September, 1955, it was closed for the winter months. The patient then worked as a night mechanic. This was his 45th job since leaving school.

His health record was not remarkable and he was in good physical health. In 1955, he was sterilized because his wife had almost lost her life during the delivery of her second child.

Personality before Arrest—Although he made friends easily, he had only one close friend apart from his wife. In groups he was self assertive and liked to be a leader rather than a follower. Since working in the drive-in, his usual cheerful, if somewhat impatient disposition, had changed and he was subject to moody spells following arguments with his mother and at these times he liked to be by himself. He disliked routine tasks and would often start some project but not finish it. His only hobby was working on his car and he spent his leisure time working about the home, watching sports or reading novels. Although he had no strong religious beliefs, he attended church 2 to 3 times a month after his marriage. He tried to avoid fights and claimed that he did not lose his temper easily. He did not take drugs and his average weekly consumption of alcohol was a pint of vodka and 3 to 4 cans of beer. He denied daydreaming but said he tended to tell exaggerated stories about himself and his achievements.

Mental State—A tall well built young man, he was polite, friendly and courteous in his manner. Although ready to talk on impersonal topics he became somewhat reserved when questioned about his mother and about his experiences with the F.B.I. Thus certain information which one might have expected from vague general questions would be forthcoming only in response to very specific inquiry.

Although usually cheerful and outgoing, at times he appeared preoccupied and depressed. His cheerful mood might have been considered inappropriate in the circumstances, but he was being encouraged almost daily by an attorney to expect a favorable outcome at the trial. Between interviews he carried on lively conversations with others in the ward and he entered with zest into recreational activities.

There was no evidence of phobias, obsessions, thought disorder, hallucinations or delusions. Testing of sensorial function showed no abnormality and he appeared to be of average intelligence. Although there was ample indication of poor judgment in his past life he showed good judgment in his handling of situations in the ward.

Readmission to Hospital—In our opinion, he was considered to be legally sane and the diagnosis was sociopathic personality. One month after his return to jail, he made a suicidal gesture by tightening his socks around his throat. He did not suffer any ill effects but the following day he was readmitted to hospital because of bizarre behavior. He claimed that people were against him and were trying to poison him. A patchy amnesia, intermittent disorientation, absurd as well as correct answers to simple arithmetical problems, together with other symptoms suggested a

Ganser state or simulated insanity.

On the 4th day in hospital, he confessed with considerable abreaction, that he had placed a time bomb in his mother's luggage. He revealed that before coming to hospital the second time, he had learned that his attorney had discovered where he had bought the dynamite, timer and battery. This had dashed his hopes for acquittal and depressed him considerably. His original intention had been to blow up the drive-in; however, after his mother refused to stay until Thanksgiving, he decided to blow up the aeroplane instead.

"I tried to tell her how I felt about it. She just said she wouldn't stay, she wouldn't give me any reason at all, no reason why she didn't want to stay. I thought it was the last time she was going to run off and leave me. I wanted to have her to myself for once. Since I was just a little kid she'd leave me with these people, those people, I wanted to get close to her, everytime I'd get close to her she'd just brush me off like I was a piece of furniture, as if I didn't mean more to her than nothing. If she gave me money I was supposed to realize that was enough. I just wanted to do things with her, to sit down and talk to her—just like everybody else's mother would do.

"I just had to stop her from going—yet it seemed I had to be free from her, too. She held something over me that I couldn't get from under. When the plane left the ground a load came off my shoulders, I watched her go off for the last time. I felt happier than I ever felt before in my life. I was afraid to do anything without asking her and yet I wanted to go ahead on my own without having to ask her. Down deep I think she resented me, little things she would do to aggravate me. It's such a relief to tell somebody what I did. It was such a terrible thing I couldn't bear to tell anybody. I deserve to be taken out and shot. I can't find an excuse for something like that." He wept as he made these statements and he begged the physician to tell his wife that he was guilty of the crime.

In subsequent interviews, he was alternately callous and remorseful regarding the tragedy. "I just felt if it killed somebody that was tough. It seemed the odds were big enough, there was more fun that way. I just didn't think about the other people on the plane. I don't think it's hit me yet. I guess I thought I could keep it all inside of me and forget about it. I finally decided I couldn't live with it myself."

He revealed previous delinquent acts. He once set fire to a garage causing $100,000 damage because he had been refused discount on car repairs. Four suicide attempts were described. On the projective psychological tests he had deliberately given false answers and he had lied when he said people were trying to poison him. After 11 days in hospital he was again returned to jail. The opinion was that he was legally sane. Later he said he had faked his attempt at suicide in the hope that he would be found insane.

DYNAMIC FORMULATION

Our dynamic formulation was based partly on conjecture. Little is known of the relationship between this man and his mother in his infancy. In later life she constantly followed a pattern of rejection, punctuated by episodes of indulgence. The consequence was that this young man had an extremely intense ambivalent relationship with his mother. He continued to hope for real and lasting affection from her, but his experience made him view her as rejecting, frustrating and a great cause for anger. In his ambivalent relationship he repressed and suppressed very much of his hostile feelings and when he spoke of his mother it was usually in loving terms.

With his warm accepting wife he had not only adult and mature satisfactions, but also important infantile satisfactions which permitted a partial mastery of the conflict with his mother. With both wife and mother he had great separation anxiety. The final determinant of his crime was his anger because his mother would not remain with him over Thanksgiving. His helplessness when threatened by this separation anxiety added to his hostility against his mother. In the year before the tragedy he was miserably unhappy with his mother.

He denied conscious knowledge of his

own father. We thought his teachers were for him a shadowy father figure. He viewed them as unjustly demanding, implacable and unreasonably punitive. The authority figures were merged together into "society" so that his poorly directed anger and indignation against them justified, for him, his antisocial behavior.

After his marriage, his sociopathic patterns seemed to become less. There were some social aberrations but he did work steadily, was successful in his university examinations and spent much time with his family. The experience arising out of his marriage of increased drive satisfaction on both adult and pregenital levels had slightly changed his anger and rebellious attitude toward society.

The period of relative social adjustment was ended by his mother's return into his life. The recapitulation of the infantile situation with her engendered so much strong emotion that his substitute gratifications paled into significance. He became more and more hostile, he began to have increasing phantasies of violence and at the end of the year he acted these phantasies out. He at once destroyed his tormentor and in a counterphobic way dealt with his fear of separation from her.

There was remarkable lack of conscious guilt in this man throughout his life. While reassured by people around him, confidence and cheerfulness could be maintained for a time. When he realized that he would be found guilty he faked a suicide attempt and made a belated attempt to simulate insanity. Much affect accompanied his confession in hospital, but there was little conscious guilt : rather he was filled with fear, anxiety and despair.

There was ample evidence of unconscious guilt and an unconscious wish to be punished. When he bought the electric timer he gave his home telephone number. He did not hide or destroy the things he took out of his mother's suitcase to make room for the bomb. His behavior following the tragedy seemed almost designed to draw attention to himself as the guilty person. He did not avail himself of the legal defenses against questioning by the F.B.I. When he had been tried and found guilty he energetically opposed appeals to higher courts.[3]

Summary

Careful examination including review of the psychological test data failed in our opinion to reveal evidence of psychosis. The diagnosis of sociopathic personality was based upon the history of poor social adjustment, intolerance of frustration and discipline, antisocial behavior, nomadism, poor work record, egocentricity and lack of judgment together with the findings upon examination.

His statement that he had faked insanity on his second admission to hospital and the absence of amnesia for this episode do not exclude a diagnosis of Ganser syndrome. It was our opinion, however, that the symptoms were consciously determined. On his first admission, limited attempts at simulation were seen in his responses on the projective tests and also in his claim of previous electroshock therapy. Due to lack of space, this report does not include all the findings of our examinations during the 44 days the patient was in hospital. The psychological tests will be reported later in a psychological journal.

[3] John Gilbert Graham was executed in the gas chamber of the Colorado State Penitentiary.

POST-ENCEPHALITIC BEHAVIOR DISORDER—A FORGOTTEN ENTITY[1]: A REPORT OF 100 CASES

SOL LEVY, M.D.[2]

Physicians working with children have for many years tended to focus primarily on the emotional reactions to past life experiences as major determinants of current attitudes and adjustments, and so-called psychologic factors were said to be solely responsible for behavior disorders in children and also for juvenile delinquency. More recently, again, organic factors in the psychopathologic reactions of children are attracting a great deal of attention and to a great many workers seem to be of more frequent occurrence and of greater significance than had been previously supposed.

As early as 1933 Kahn and Cohen(1) first described a condition "organic drivenness, a brain stem syndrome, and an experience" found in a number of cases where hyperkinesis due to a surplus of inner impulsion was the predominant feature, and claimed that this was due to an organic disturbance within the brain stem. According to these authors this brain stem disturbance with the subsequent organic drivenness is found in various encephalopathies, notably encephalitis epidemica, but it also can occur in various degenerative diseases of the nervous system, and there may also be a constitutional type. They reported outstanding symptoms in this condition, namely 1. A high degree of general hyperkinesis with either choreaform or tic-like movements in face, trunk and extremities; 2. Outstanding difficulty approaching an almost complete inability in maintaining quiet attitudes; 3. Abruptness and clumsiness in the performance of movements, even the relatively simple ones, and 4. An explosive motor release of all voluntarily inhibited activities. Numerous papers appeared after the original report of Kahn and Cohen describing the hyperkinetic or post-encephalitic child. Among them papers by Bond and Apple(2) emphasized the importance of treatment of this type of child in a special setting in an institution.

Numerous other reports appeared on the subject and all agreed with Greenebaum and Lurie(3), that

> encephalitis following acute virus and bacterial infections or cerebral trauma early in childhood may lead, in addition to structural cerebral changes, to behavior and personality disturbances, of such gravity as to prevent normal adjustment to life. This despite the fact that the intellect may be unimpaired. Encephalitis illustrates better than any other disease that changes in the structure of the brain may lead to changes in function. Since the encephalitic process may attack any part of the brain, the disorganization of function will correspond to the level or levels of the brain stem involved. Hence, motor or intellectual dysfunction, either alone or in combination, may be present.

Because a similar behavior pattern may also be found in children who present no clear cut history of any of the classical causes mentioned, the term post-encephalitic behavior disorder has been giving way to the term hyperkinetic impulse disorder. Children with this type of disorder show definite behavior characteristics which are almost exclusively expressed in the volitional sphere: erratic behavior with tendency to "catastrophic reactions to frustrating situations," hyperactivity, being the most striking. This may be noted in early infancy or not until 5, 6, or even 10 years of age. Short attention spans and extremely poor powers of concentration are quite noticeable, particularly under school conditions. Variability also is frequently present, with the children being described as unpredictable, impulsive, distractable, and doing things "on the spur of the moment" without apparent premeditation. They act before they think, are irritable and explosive with low frustration tolerance and show extremes of emotional response. Outstandingly, these children also seem unable to tolerate any delay in gratification of their needs and demands, and usually do not

[1] Read at the 114th annual meeting of The American Psychiatric Association, San Francisco, Calif., May 12-16, 1959.

[2] 277 Paulsen Medical and Dental Bldg., Spokane, Wash.

show remorse for their behavior.

Poor school work is frequently quite prominent. These behavior symptoms in themselves create a pattern which makes it very difficult for such children to participate in the work of a school room. In addition, there is often visual-motor difficulty which, combined with the other difficulties makes for poor work in arithmetic and reading, despite a usually normal intellect and aptitude.

On the other hand, this type of "acting out" behavior is usually responsible for antisocial acts. The children are continuously in difficulties with the authorities as "incorrigible," behavior problems, "juvenile delinquents" and the like. In spite of the fact that these basic characteristics of this particular behavior pattern are strikingly similar, if not identical, to those in cases with clear cut organic causation as described by Rosenfeld and Bradley(4), Frosch and Wortis(5) and Lurie and Levy(6), its organic etiology has been widely disputed, and its etiology has been said to be psychodynamic in origin. Typical of the latter attitude is the opinion expressed by Blau(7) as recently as 1954 which states,

> 1. Our views regarding the diagnosis, etiology, and treatment of organic (post-encephalitic and post-traumatic) syndromes of children have changed from a purely organic to a multidimensional psychiatric or psychosomatic one, 2. Chronic mental sequelae in children following birth injury, accidental head injury or encephalitis are not common, and 3. Many cases diagnosed at first as organic syndromes are found on fuller investigation to be psychogenic anxiety neuroses with behavior disorder, intellectual retardation, or disturbed personality development. The relation to the somatic injury is often emotional, as an aggravating or precipitating factor.

Because of this attitude which has been prevalent during the past 20 to 30 years, post-encephalitic behavior disorder has become one of the forgotten entities, and furthermore, because of the emphasis on the so-called psychogenic origin of this type of behavior which was then treated only with psychological methods, a great deal of harm was done to the child suffering from such an illness, and to his family, since the real causation was not recognized and the proper treatment not instituted.

To digress for a moment, it might be wise to re-examine our attitude toward the causation of behavior disorder and delinquency in children. For the past 20 to 30 years our etiologic approach was generally psychodynamic in nature, and our treatment methods were based entirely on this assumption. However, if one looks at the increased incidence of these conditions, one cannot help but wonder if our approach to these problems has been erroneous. True, social, cultural and other environmental factors have changed considerably but still they cannot alone explain the increase in behavior disorders or delinquency in children, both of which are alarmingly on the increase and threaten to reach the critical stage. Just as in the major psychoses where at the present time we are again looking more and more into the biological causes and disregarding as basic causes the psychological influences, it might be well to do the same with behavior problems and juvenile delinquency. In fact, if our etiologic and therapeutic approaches had been right, the problem should have diminished rather than increased as it did, for instance, in purely physical conditions such as tuberculosis and polio.

This paper, then, concerns itself with the report of 100 cases in which the diagnosis of a post-encephalitic behavior disorder was made. There were 72 boys and 28 girls in this group and ages ranged from 4½ to 21 years. Most of these children were referred for psychiatric examination by either legal or social agencies, some by their family physicians, and in only a few instances the parents themselves brought the children because they could not handle them any longer.

Diagnosis can be made very easily if there is an awareness of this condition. The history has been the most valuable item in making the diagnosis. First, by looking for possible etiologic items such as a high forceps delivery, severe infectious disease in early infancy (pertussis, measles, *etc.*), or frequent attacks of hyperthermia without apparent cause. The other important aspect of the history has been the parents' description of the characteristic behavior of the

child which even in the absence of the classical etiological factors is so definite that the diagnosis can easily be made. The parents without exception describe these children as hyperactive, restless with short attention and concentration spans, unpredictable acting before thinking, destructive, and usually not showing any remorse and not learning by experience. If the child is of school age this type of behavior is usually further confirmed by the reports of the teachers who also stress the fact that "the child could do much better if he only would apply himself."

Physical and neurologic examinations are usually negative. EEG's also do not show any persistent or specific abnormalities, although most of them were described as "mildly diffusely abnormal with activity below the usual range of frequency." More recently however Laufer *et al.*(8), using the photo-metrazol threshhold test found significant differences in the EEG between the hyperkinetic and non-hyperkinetic children. Psychological examinations also are noncontributory. Most of the children have normal or above normal I.Q.'s but this is not expressed in their school performance which usually is below average.

Therapy, if instituted early and properly, can be highly successful in this condition. Our original rather nihilistic concept that if organic damage, especially in the higher centers is present, nothing can be done, has certainly proven to be a doubtful one. True, management of this child is extremely difficult, but with the right approach, therapeutic results can be rewarding indeed. In addition to conveying insight and better understanding of the underlying problem to the parents and freeing them of the feeling of guilt they may have toward the child, therapy has to be directed toward control of the "disorganized brain" which has so aptly been stated by Kahn and Cohen "makes the child a puppet at the mercy of these disorganized centers in the nervous system."

Until approximately 20 years ago when Bradley(9) introduced the use of amphetamine (benzedrine) for the treatment of this disorder, the therapeutic results were poor. Barbiturates as well as anticonvulsants were used with disappointing results, and more recently, the tranquilizers have proven to be of no value. On the other hand, the amphetamines produced very favorable effects in the post-encephalitic and hyperkinetic children by producing subdued behavior, decreasing hyperactivity and restlessness and markedly increasing concentration and attention spans. Thus the scholastic performance in these children promptly improved because of their newly found ability to concentrate. They are less driven in their behavior and in general much easier to get along with. This complete change in their behavior naturally produced other psychological effects, for instance, more favorable attitudes of the parents and teachers toward these children.

It has to be stressed that if successful, amphetamines have to be given in high doses and for a rather prolonged period of time, with the improvement usually noticed within the first few days, usually not longer than two weeks. Once the effect of the drug becomes apparent the results are rather spectacular. The child quiets down immediately, his concentration and attention spans improve greatly and no further evidence of unpredictable behavior is seen. If the child is of school age the teachers are usually the first who notice the improvement and report that the child's school response all of a sudden is nothing short of spectacular.

In this study benzedrine sulfate was used and was administered in doses from 10 to 40 mgs. daily. In most cases a single morning dose after breakfast was sufficient, but in some children the action of the drug wore off in the early afternoon and they resorted to their previous hyperkinetic type of behavior making a second dose one half the amount of the morning dose necessary to be given around lunch time as a kind of booster. This then controlled their behavior for the entire day. The usual side effects were poor appetite and interference with nocturnal sleep and in some cases the so-called amphetamine look—a pale, pinched serious facial expression with dark hollows under the eyes. None of these is of serious consequence, but the parents, told about it in advance, were prepared for adverse comments concerning the children's appearance. Furthermore, it is important to tell

the parents that before the drug takes effect the children might show exaggerated behavior reactions either in the form of becoming more fearful, tearful and whiney, and even becoming more hyperactive, irritable and displaying severe temper tantrums. These reactions are only of short duration and, in fact, should be regarded as a good indication that the drug will be effective, if they persist not over a period of 2 to 3 weeks. If they persist, as happened in one case in this series, it might indicate that the children are either extremely sensitive to the drug which should then be discontinued, or that the diagnosis was in error and that the behavior characteristics were not the result of an organic post-encephalitic syndrome. Naturally the parents have to be told about this in advance since this type of behavior during the first week or two could easily produce lack of faith in the medication and the physician and loss of hope for the ultimate improvement in the children's behavior. Regardless of how cooperative or sincere the parents were, they usually, when one of these reactions occurred, did not fully accept the physician's word for it that it would be of only a temporary nature. For this reason we found it quite helpful to let them talk to other parents who went through the same experience and who could in turn reassure them of the temporary nature of this reaction, and the ultimate good results of the drug.

In view of the fact that it is very important to give the drug over a prolonged period of time, usually years, it has to be readjusted as to the therapeutic dosage from time to time since it might lose its effectiveness. If this should occur, a zigzag method of administration usually will restore its former effectiveness.

RESULTS

The results in the 100 cases of this study have been uniformly excellent. The children, prior to administration of the drug showed outwardly antisocial, asocial, psychopathic and other types of behavior problems which were all found to be symptomatic of the underlying post-encephalitic behavior disorder. There was one child in this group in whom the drug had to be discontinued because of the side reactions in the form of exaggerated hyperkinetic syndrome persisting over a period of a month and it was felt then that the diagnosis was in error. Another child after having benefited by the drug for a period of 2 years developed suddenly a sensitivity to the drug which produced a dermatitis in the face. Otherwise the remaining 98 children tolerated the drug very well. In 5 cases the parents, after giving the drug for a considerable period of time, thought that their child was in no further need of this medication and refused to continue with the treatment. However, 4 of them after a period of between 3 to 5 months without the medication reverted again to their former type of antisocial behavior when the parents brought the children back for further therapy which was resumed with equally good results.

Post-encephalitic behavior disorder, therefore, is definitely an organic condition and if recognized as such can be treated very successfully with the use of high doses of amphetamine. Side reaction, if any, is very rare and of no serious consequence.

In these days with behavior disorders and juvenile delinquency on the rampage, it seems a great tragedy to adhere too stubbornly to a unilateral attitude regarding the concept of these conditions. It is felt that a great many cases labeled as behavior disorder and juvenile delinquency are caused by an unrecognized organic brain disorder, usually as shown in this paper in the form of a post-encephalitic behavior disorder.

The following cases are picked at random in order to illustrate this type of behavior disorder and demonstrate the results of treatment.

B. T. a 13-year-old, white boy was referred by the Child Welfare service at the recommendation of the Juvenile Court authorities who were ready to send him to the State Reformatory but wanted a prior psychiatric examination.

The boy first came to the attention of the Child Welfare Service when he was 9 years old. He had been apprehended for stealing money from a service station, but previously had been playing truant from school and running away from home on many occasions. When the boy was 11 his father committed

suicide and then the boy's behavior became even more uncontrollable. He was placed in a foster home but was unable to adjust and in the next year and a half had approximately 15 placements, running away from all of them several times. On his running away episodes he engaged in car theft and looting gasoline stations. He had stolen at least 7 automobiles and had broken into as many gasoline stations. He also became extremely combative, physically attacking other children and even foster mothers.

Early development and physical history were negative except for a moderate attack of whooping cough at the age of 15 months. When 18 months of age he suffered from what was described as double pneumonia, his temperature reaching 107° at one time. Otherwise physical and medical history is non-contributory. The boy's early home condition had been extremely unstable. His father drank heavily and became extremely abusive and threatening. The parents were separated on numerous occasions, and the father at one time was removed from the home by a Court restraining order because of his abusive behavior. The mother seemed fairly stable but was unable to cope with her own as well as her husband's and the boy's problems. There were two older sisters and one younger brother, and one of the sisters had at one time been confined to the State Reformatory for girls for sexual promiscuity.

The boy's problem started when he entered school. He was unable to make an adjustment and changed school numerous times. He became involved in stealing episodes and was unable to get along with his schoolmates. The teachers complained that he was restless, did not apply himself, although he was said to have the intellectual ability to do better than average work. At one time the Juvenile Court ordered him to be sent to the State Hospital for observation. He remained there several weeks and was released with the recommendation that he be placed in still another foster home, and his problems were said to be entirely due to environmental factors.

When examined, the boy was extremely restless, hyperactive with short attention and concentration spans, showing markedly unpredictable behavior. He also showed evidence of marked feelings of insecurity and inferiority for which he tried to overcompensate by aggressive behavior. Physical and neurological examinations were essentially negative. On the Stanford-Binet he scored an I.Q. of 111 but the examiner noted that his reading was markedly below average and that his concentration and attention spans were poor. EEG was also done which was reported as "mildly diffusely abnormal with activity below the usual range of frequency." On the basis of the history and the characteristic behavior, a diagnosis of a post-encephalitic behavior disorder was made and the boy was placed on 15 mgs. benzedrine daily. Immediately after institution of therapy his behavior improved markedly, restlessness and hyperactivity subsided, concentration span improved and although he had been on probation in school, he was immediately taken off since the teacher reported very satisfactory adjustment at school with marked improvement in his grades, and better socialization with other children. He showed no further evidence of antisocial activity, has assumed responsibility in that he works after school and during vacation time, and all reports from school and his employers indicate that he is very reliable and trustworthy. His improvement has now been maintained for a period of over 2 years and at the present time he is on benzedrine sulphate mgs. 10 in the morning and mgs. 5 at noon. He is still being followed at 6-week intervals.

R. M. was originally referred by his family physician when he was 5 years of age. The parents who are both college graduates (his father is a practicing optometrist), felt that the boy was "incorrigible" especially since the birth of his younger brother 2 years before. He developed definite temper tantrums, became restless, hyperactive, destructive with poor concentration span. The mother, unable to cope further with this problem had consulted her family physician. The parents thought that the boy's behavior problem was entirely due to jealousy and sibling rivalry with the younger brother. Social and family history were essentially non-contributory. The boy comes from an above average home. The medical history showed that at a young age he ran bouts of unexplained fever diagnosed as "infectious mononucleosis."

Physical and neurological examinations were essentially negative. EEG revealed "mildly diffusely abnormal record," and psychometric examinations revealed an above average intelligence. A diagnosis of post-encephalitic behavior disorder was made and the boy was placed on benzedrine sulphate mgs. 10 in the morning. After a temporary period of increased hyperactivity and restlessness with more temper outbursts, he began to settle down, became less hyperactive and restless with increased concentration and attention span. His relationship with his younger brother improved considerably and parents could not con-

ceal their amazement over such an improvement in their "incorrigible" child. The boy now has been under treatment for a period of over 3½ years. The dosage of benzedrine had to be readjusted at times but in the meantime he entered school and became one of the best students in school doing above average work. He is still on a dosage of 7½ mgs. benzedrine in the morning and is being seen at 2 to 3 month intervals in the office.

R. S. was referred to us at the age of 15 years through the parents of another child who had been a patient. The complaints were that at the age of 12 he had started to run away from home and began to skip school. His behavior in school became "intolerable" and on various occasions he was expelled. On various occasions he was brought to the attention of the juvenile authorities who had recommended psychiatric examination. The psychiatrist thought that the boy's problems were entirely due to environmental influences and recommended placement away from home. At the time of our examination he had been expelled from school because of his behavior difficulties and his poor academic record.

The boy comes from a broken home. The parents were divorced when he was 7 years of age and he lived with his mother. His real father later on was committed to a mental hospital. The mother remarried when the boy was approximately 8 years of age, and since that time the home conditions were extremely stable. The step-father is a policeman in this city having been on the force for over 20 years. Medical history shows that the boy has had the usual childhood diseases without complications except for an attack of measles with marked hyperthermia at the age of 3 years. He was described as nervous with marked restlessness, hyperactivity, temper outbursts, unpredictable behavior and poor concentration and attention spans. He was said to act on the spur of the moment without thinking first.

Physical and neurological examinations were essentially negative. Psychometric examinations revealed high average intelligence and the EEG was reported as mildly diffusely abnormal. A diagnosis of a post-encephalitic behavior disorder was made and the boy was placed on benzedrine mgs. 15 at breakfast and mgs. 5 at lunch. Within 2 weeks his behavior was so greatly improved that return to school was recommended by us and accepted by the school authorities. He immediately adjusted very satisfactorily to the school routine and did not show any further evidence of antisocial or asocial behavior. His concentration span improved and he was described by his teacher as very easy to handle and easy to get along with. His grades came up gradually and more recently he was one of two students whose achievements in science were the subject for a newspaper article. He has been followed now for a year, has maintained a very satisfactory adjustment in school and also has taken on responsibility in various social groups. He became a leader in the Church Youth Group, and also a counselor at the YMCA. He is being followed at monthly intervals in the office and is still receiving the same amount of benzedrine with which he was originally started.

BIBLIOGRAPHY

1. Kahn, Eugene and Cohen, Louis H. : New Eng. J. Med. **210** : 748, April 5, 1934.

2. Bond, E. D. and Apple, K. E. : The Treatment of Behavior Disorders Following Encephalitis. New York Commonwealth Fund 1931. Bond, E. D. & Smith, L. H. : Am. J. Psychiat., **92** : 17, 1935.

3. Greenebaum, J. Victor and Lurie, L. A. : J.A.M.A., **136** : 923, April 3, 1948.

4. Rosenfeld, G. B. and Bradley, Charles : Pediatrics, **2** : 74, 1948.

5. Frosch, J. and Wortis, S. B. : Am. J. Psychiat., **111** : 132, 1954.

6. Lurie, L. A. and Levy, Sol : J.A.M.A., **120** : 890, 1942.

7. Blau, Abram : Res. Publ. Assoc. Nerv. Ment. Disc., **34** : 404, 1954.

8. Laufer, Maurice W. and Denhoff, Eric : J. of Pediatrics, **50** : 463, April 1957.

9. Bradley, Charles : Am. J. Psychiat., **94** : 577, 1937. Bradley, Charles and Bowen, M. : Am. Orthopsychiat., **10** : 182, 1940. Bradley, Charles and Green, E. : Am. J. Psychiat., **97** : 388, 1940. Bradley, C. : Pediatrics, **5** : 24, 1950.

A CRIMINOLOGIST LOOKS AT PRIVILEGE [1]

AUSTIN MacCORMICK [2]

This paper, since the author's professional career of 40 years has been largely in the correctional field, will focus on the subject of privilege and privileged communications in reference to that field, and particularly to correctional institutions and parole.

In the final draft, however, reference will also be made to the subject of personal privilege in other areas of the general field of criminology: protection of the Fifth Amendment in criminal investigations and trials; decisions of the Supreme Court of the United States and the appellate courts of a score of states excluding evidence obtained by illegal methods; decisions tightening the definition of illegal search and seizure; and other phases of the question of the individual's constitutional rights and privileges, as that question arises in law enforcement.

The present use of individual and group therapy in prisons and other correctional institutions to an extent only dreamed of until recent years has opened new problems with respect to privileged communications. It has presented a new challenge to psychiatrists and other professional personnel engaged in therapy. The challenge is to their professional status. The question on which the psychiatrist, as an individual therapist and as head of the therapy team, has a right to the last word—a firm as well as a final word, if need be—is whether or not he is practicing psychiatry or a bastard brand labeled prison psychiatry.

Other professional therapists have a similar question to answer, and must make the same reply: that one does not give up any of his professional ethics, rights, and responsibilities when he walks through a prison gate to go to work; and, by the same token, that an offender does not lose his rights of privileged communications in relationships with psychiatrists and other professional psychotherapists when he walks through the same gate to do time.

It is of tremendous importance for the future of psychotherapy in correctional institutions that the principle of privileged communications not be deemed to lose its validity inside prison walls. It is important, moreover, that its validity be recognized not merely because a professionally trained person is the therapist. From both the practical and the philosophical standpoint, it is perhaps even more important to recognize that the prisoner has the right to a confidential relationship with his therapist as he has with his attorney or his clergyman. In short, privilege is not a unilateral right: it is not the right of the therapist alone, but the right of the prisoner as well.

There is no way of convincing the prisoner that he has this right except to give it to him, respect it without equivocation, and safeguard it for him more carefully than he would for himself. One may do this from a lofty ethical standpoint or on the grounds of down-to-earth practicality. Correctional institution programs of group therapy especially are doomed to failure if the confidentiality of statements made in group sessions is not maintained. These programs are ordinarily conducted on a voluntary basis: prisoners are not compelled to attend and, if they are, there is no way of forcing an individual to participate in the discussions if he does not want to, or to tell the truth when he speaks. A group of prisoners, required to attend group therapy sessions, may sit in stony silence for a full hour or break into noisy disorder. The silence does not often continue that long, however, for the deep anxiety some member of the group feels is likely to cause him to start talking and break the log jam. Individual therapy presents fewer problems of this sort, but little progress will be made unless the prisoner knows that what he tells the therapist is confidential.

The strongest motivation for attending voluntary group therapy sessions is that the parole board or authority, when a prisoner comes before it for possible release, will want to know why he has not taken advantage of the opportunity for improve-

[1] Read at the 114th annual meeting of The American Psychiatric Association, San Francisco, Calif., May 12-16, 1958.

[2] University of California, Berkeley, Calif.

ment offered him by the therapy program or, if he has participated in it, why he has not gained more insight. Prisoners who have been in group therapy for a year or more, as a matter of fact, find themselves on the horns of a new dilemma : if they use the jargon of therapy too fluently, the parole board members may think they are being "taken for a snow-ride"; if the prisoner tries not to be too conversant with psychiatric concepts and terminology, the board may think he has made little progress in insight.

The all-important factor in convincing prisoners that it is safe for them to talk freely in either individual or group therapy is honest acceptance of the principle and practice of confidentiality by the administrative staff of the institution and by the paroling authority. It is not an easy thing for either of them to accept this idea wholeheartedly and live up to it meticulously.

Correctional institution personnel have need of all the information they can obtain on prisoners, not only for security reasons but also because programs of training and treatment in our better institutions today are individualized on the basis of as complete knowledge of each prisoner as can be obtained through case histories, medical examinations, psychiatric examinations (almost always severely limited in scope and depth by lack of enough psychiatrists), psychometric, educational achievement and vocational aptitude tests, interviews by trained personnel, and careful program planning by a classification committee composed of representatives of the major departments of the institution.

Since over 95% of all state and federal prisoners will be released eventually, it is the institution's function to prepare them for safe and successful return to the free community. In planning and carrying out a program of training and treatment which might accomplish that end, the institution staff would find much of the information that comes out in individual and group therapy invaluable, from the standpoint of the prisoner's best interests as well as the protection of the public against future crime. Institution personnel have a legitimate desire for the fullest possible information on every prisoner.

Parole boards have an even greater and more legitimate desire and need of full information about the prisoner coming before them as a prospective parolee, including knowledge of what lies deep in the inmost recesses of his mind and emotions, and deeper yet in the unconscious. Parole boards have difficult and frequently dangerous decisions to make, and must often make them on the basis of knowledge that is inadequate in scope and shallow in depth. The shallowness of the information available to most parole boards is being increasingly recognized as of prime importance. To decide wisely whom to parole and when, and whom to hold until the last minute of the sentence imposed by the court, one needs to know everything one can learn about the prospective parolee's deepest motivations, urges, impulses, unresolved conflicts, frustrations, and desires, the insight he has gained, his ability and desire to adjust to the complex world of free society.

Giving parole boards access to what is dug up in individual and group therapy would be opening a veritable gold-mine to them. But the shaft of that mine is sealed to them and to institution administrators, and must stay sealed. Prisoners have their eyes always on the day of release and their minds always on what may advance or delay that day. Unless they can be sure that whatever they reveal in therapy will not be reported to the institution administration or the parole board, the effectiveness of psychotherapy will be disastrously impaired and will eventually cease to exist.

This is the practical reason for adhering to the principle of privileged communications in prison programs of individual and group therapy. It is reason enough, but in the correctional systems that use these programs most extensively, notably the California system, the factor of professional ethics is given equal weight with practicality. In the institutions operated by the California Department of Corrections, professional personnel are numerous and standards are high. More prisoners are voluntarily enrolled in group therapy than in any other correctional system in the country : more than 1,200 in one institution alone, the Department's 1,400-bed medical

facility at Vacaville, a remarkable institution headed by Dr. Marion King, a participant in this panel.

The Department's program of care, custody, training and treatment is well organized, well equipped, well staffed. It is planned on the basis of as full information as can be obtained legitimately about the prisoners as a whole and as individuals. The California Adult Authority has a dual responsibility, for it has the function of fixing terms within the limits set by the statutes and the courts, as well as the paroling function. With that dual responsibility goes a double need for the kind of information that is held inviolate by the seal of professional ethics and the principle of privilege.

The Adult Authority does not ask for this information, and respects the therapists' and the prisoners' rights of privileged communications with equal care. Therapists in turn guard the rights of prisoners in individual and group therapy, as well as their own, jealously. Members of the Adult Authority state, however, that prisoners appearing before them for term-fixing or parole consideration frequently say exactly the same things that they have undoubtedly said in group therapy. They have gained insight into their own problems, have discovered that many other people have the same ones they have, are able to discuss these matters objectively, and realize that the Adult Authority is more likely to be convinced of a prisoner's readiness for release if he discusses his problems frankly and with understanding.

Any psychiatrist working in a correctional institution must face one hard fact, however. There are some things with which a prisoner has no moral right to burden his therapist, and the latter must decide for himself when the prisoner has gone over the border line and cannot expect the right of personal privilege to go with him. In California and in more than half the other states, the law does not sanction the privilege of the physician-patient relationship in criminal cases. An extension of this legal concept implies that there are some communications in penal and correctional institutions which one is not justified in holding as privileged. The decision where to draw the line is a most difficult one. It is dangerous to give specific examples, but it seems to me that one can accept as a privileged communication a statement by a prisoner in therapy that he had a history of child molesting in another state before coming to California, and that it does not appear in his criminal record. The Adult Authority needs to know this but it needs to know many other things that come out in therapy, and will stop coming out of individuals and prisoners as a whole, thus destroying the prospects of therapy, if confidentiality is not respected. On the other hand, if a prisoner tells a therapist that he is going to kill another prisoner and has a knife hidden safely, or is going to kill his wife as soon as he gets out, if it is the last thing he does, then the prison authorities must be informed and they, in turn must inform the parole authorities in the second situation, a murder planned after release.

All this may seem to impair the validity of the principle of privilege in a prison setting. It does not, in my opinion. It seems to me a tenable position for any psychiatrist or other therapist who has a good streak of common sense in his make-up as well as sound standards of professional ethics and a strong conscience.

Summary

The usefulness of psychiatry and acceptance of its enormous potential value in the law enforcement and correctional fields are growing steadily. The development of programs of individual and group therapy in correctional institutions seems to me the most significant thing that has happened in the correctional field in the past 40 years. Psychiatrists can speed their acceptance by fitting easily into the prison setting, and by making compromises that will make them more acceptable to old-line institution officials. I hope nothing I have said will sound as though I advocate such trimming of one's sails to the wind. In dealing with questions of privilege and in every other professional relationship, I believe unequivocally that principle, not mere practicality, should prevail. As an old hand in "the prison business," however, I do not believe they are always incompatible.

THE PROBLEM OF PRIVILEGE : HISTORICAL AND JURIDICAL SIDELIGHTS [1]

HENRY ROOT STERN, JR., L.L.B.[2]

The word "privilege" is derived from two Latin words meaning "private law," that is, a matter of law which is not public or general in its effect. In this connotation, of course, lies much of the difficulty in the application of the doctrine of privilege, for in the history and tradition of Anglo-American Law, a rule which is not general in its application has commonly been frowned upon. It is perhaps this history and tradition which has induced criticism by authorities such as Professors Wigmore and McCormick and which is reflected in rigorous application by the courts of the rules pertaining to privilege.

At common law in England the only recognized privilege was the attorney-client privilege. As is common to all privileges, whether originating in the case-law or later by statute, the privilege against disclosure of confidential communication belongs to the client, the patient, the penitent, or the disclosing spouse, not to the person to whom the subject matter is communicated. Nevertheless, the historical fact that the attorney-client privilege was the only one recognized by common law is not without its impact some hundreds of years later when privilege generally is a matter of statute rather than of common law.

It will be at once observed that the courts and the academic critics of privilege in general are themselves lawyers. It is only natural, I suppose, that they should feel a greater regard for the attorney-client privilege than for any other. One must assume from the strictures laid upon the exercise of privilege, that courts and lawyers are fearful lest the extension of the rules of privilege lead to the perpetration of fraud, either actively or passively, that is to say, either by deliberate plan entered into by the persons in the confidential relationship, or by suppression arising from assertion of privilege of facts which, if known, might lead to an opposite result. The existence of such an apprehension is native to the thinking of judges and attorneys, for the postulate upon which their thinking rests is that through the process of examination and cross-examination the truth inevitably is arrived at. In consequence, to place an impediment in the path of one who seeks to develop the truth through testimony is to block the relation of matters possibly decisive of the issues in a given situation.

From a dispassionate point of view it may be said that this is a self-serving syllogism. Inevitably though, that result is achieved, since the logical process is so basic to attorneys' reasoning and, of course, since all judges are lawyers.

On the other hand, there can be little question that misuse of privilege, like the misuse of any other tool, can have unfortunate results. From a moral or a philosophical point of view there is much justification for the existence of privileged communications. In each of the 4 instances where it exists in law, the ordinary person would have little difficulty in feeling a sense of injustice, if not in sensing an immoral state of affairs, were the receiver of the confidential communication to be compelled to speak against the will of the client, patient, penitent, or spouse, as the case may be. There is innately in every person a sense of fair play, if not morality, which leads him to respect the confidences of another. Once having said that, one must also admit that it is equally a part of human nature to repeat, if not to gossip about, other people's business. Thus the matter cannot be left to the scruples of the truly scrupulous man. If law represents—at least ideally—the sum of man's experience in living with man, then certainly in these instances it is better to make privilege a rule of law rather than a matter of individual conscience.

To return to something I said earlier—the common law recognized only the attorney-client privilege. I do not think that anyone can quarrel with the necessity for

[1] Read at the 114th annual meeting of The American Psychiatric Association, San Francisco, Calif., May 12-16, 1958.

[2] Nassau Bldg., 220 Old Country Road, Mineola, L. I., N. Y.

the confidentiality of such a relationship. From a practical point of view, or from the standpoint of morality, or philosophy, taken in the sense of fair play, or in the ordinary everyday use of the word ethics, there is every reason why the attorney-client privilege should have come into existence and have remained the clearest and strongest of the 4 classes of privilege.

The other 3 can make strong demands for similar recognition. But oddly enough the law, as I see it, has never advanced equally strong reasons for their existence, probably because courts and attorneys think in purely legal terms rather than in terms of medicine, theology, or even in terms of the marital relationship. I suspect that because the thinking in relation to privilege other than the attorney-client is not as clear and meaningful in the minds of courts and attorneys that therein lies the ground for the criticisms. If every profession (and I am here using the word profession in the sense of learned occupation) has its own cult or mystique to the extent that the profession's own "expertise" is practised there is failure to recognize its counterpart in another profession.

Thus, inevitably, we return to the basic reality of the situation, namely, that questions of privilege in respect to doctors and priests, not to mention husbands and wives, will be weighed not in the balance of their own context, but within the scales of traditionally legal "expertise." That this situation is anomolous, goes almost without saying, but is fundamental to an understanding of what lawyers and courts, and even legislators who write the statutes governing privilege may or will do in respect to any of them. Thus, at the threshold of examining a question of privilege in any category, one must recognize that inquiry is confined within bounds established wholly by the legal profession. Whether or not such definition by one of the learned professions for two others (and for husbands and wives) is good is not the point. The point simply is: realistically, this is the way it has been, and still is being, done. Acceptance of this reality permits understanding and in the long run will provide, I am certain, the key to the particular problems of privilege which, for example, the American Psychiatric Association faces.

With this in mind, one must next turn to its corollary: because of the legal framework within which privilege has always existed, courts have sought to limit its application strictly. The practical evidences of this generalization may be seen in the various ways in which the privilege may be waived. One of the most common is the presence of a third person, even an eavesdropper. Other devices have been used to vitiate the privilege. The recent *Lanza* case (1) in New York comes to mind. If you read the newspaper articles, you will recall that the authorities, by means of electronic devices, overheard and tape-recorded conversations between Lanza and his attorney while the former was in jail. The New York courts had to meet head on a problem of considerable moral outrage. While condemning the practice, the recording was, nevertheless, permitted to be used on the ground that its proposed use was in a legislative hearing and not in a court of law. Had it been the latter, the reasoning of the court clearly shows that the material would have been inadmissible for any purpose whatsoever. This distinction, while perfectly sound in view of existing statutes, does really beg the question. As an illustration of the extent to which courts will go to restrict the application of privilege to new situations a better one could not be found.

Since writing the foregoing, the Legislature of the State of New York has passed, and the Governor has signed, a bill to correct the result discussed, and I shall have something to say about it later in this paper.

Interestingly enough, the *Lanza* case is strongly reminiscent in the result achieved of one of the earliest cases on the subject of privilege that I have been able to find. Back in the days of James I there occurred the famous trial of Father Garnett(2), a Jesuit priest who became implicated in the Guy Fawkes plot. It is very difficult to tell some 300 years later whether his assertion of privilege was merely the best defense that the poor Father could put up having actually been heavily involved with the plotters, or whether he was truly an innocent victim by reason of having heard, in

his capacity as a priest, the confessions of admitted conspirators.

It is difficult to tell principally because of two factors. First, Father Garnett's confession was only read partially to the Judges. Of course, it mattered very little in England in the early 1600s on the trial of a defendant for treason whether his whole confession or only part of it were read. The situation simply was that any defendant in a treason trial, as in all other criminal cases, was required to conduct his own defense without aid of counsel, was not permitted to call witnesses on his behalf, nor to give testimony in his behalf. In addition, like the Stalin purge trials in the 1930s, the courtroom appearance was purely for public consumption. The defendant never had a chance from the time he was implicated, and in fact it was the practice, until Lord Coke refused to acquiesce in it, for the Crown to consult the Judges in advance of the trial itself to determine what their verdict and sentence was going to be. Since the Judges owed their appointment as such to the Crown, the situation hardly offered any choice, especially where the charge was treason to the King.

The second factor offers another interesting device for vitiating a moral principle. The common law of England at the time, as enunciated by its great Judges, took enormous pride in repeating in all treason cases that the law of the realm forbade obtaining the confession of a defendant by torture. As far as it went, this was a true statement of the common law of England. Beyond the common law, however, in the 17th century and before, there lay the enormous prerogatives of the Crown. These prerogatives were above and beyond the common or statute law of the time and their existence was justified broadly under the doctrine of the divine right of Kings. They were numerous and their effects were far reaching. For the purposes of Father Garnett's case, and for those wretches similarly accused of treason, one of the King's prerogatives was to torture prisoners in order to obtain confessions. Incredible as it may seem, the court which heard Father Garnett's confession was able to say with utmost seriousness that it had not been obtained by torture, since the common law forbade it. No mention was ever made of the exercise of the King's prerogative.

Even so, when one reads Father Garnett's entire confession, not just those parts which taken out of context and standing by themselves tended to implicate him, one has grave doubt whether or not, torture or no torture, the priest was truly guilty.

Father Garnett's defense, foredoomed to failure, was that whatever he knew of the existence of the Gun Powder Plot, had been revealed to him in confession and that he was morally bound not to disclose whatever he had learned from his penitent. He asserted that the law of England must be founded upon moral law. Condemned in advance as he was, it still took considerable side-stepping by the court to escape the force of moral logic. The Judges held that one like Father Garnett so foully implicated in such a diabolical plot against the life of the King, not to say the members of Parliament, could not be heard to advance a moral principle in defense of an immoral act.

A sardonic footnote to this spirited assertion of a basic moral principle by a man broken by torture is provided by history. The force of his personality, if not the force of his argument, or the weakness of the Crown's case, appears to have made an impression upon King James, for when the inevitable sentence to be hanged, drawn, and quartered had been pronounced, the King remitted that part of it relating to the drawing and quartering while still alive and directed that Father Garnett should be hanged until he was quite dead, a merciful act rarely accorded to any condemned traitor in those bloodthirsty days.

The significance of Father Garnett's assertion was not lost in ensuing centuries and ultimately the position which he took became the law of a great many of the states in this country. It must be noted again that the privilege was created by statute and not by common law.

Of greater interest, perhaps, to physicians, was the Duchess of Kingston's trial in 1776(3), where, for the first time, the issue of physician-patient privilege was raised. There may have been other prior instances, but it must be remembered that the system of reporting all cases of im-

portance did not approach anything like the modern system until late in the 18th century. There, the physician who had attended the accused Duchess and her alleged husband was asked, "Do you know from the parties of any marriage between them?" The physician answered, "I do not know how far anything that has come before me in a confidential trust in my profession should be discussed consistent with my professional honor." Lord Chief Justice Mansfield ruled,

> If all your lordships will acquiesce Mr. Hawkins (the physician) will understand that it is your judgment and opinion that a surgeon has no privilege, where it is a material question in a civil or criminal case to know whether parties were married or whether a child was born, to say that this introduction to the parties was in the course of his profession and in that way he came to the knowledge of it . . . If a surgeon was voluntarily to reveal these secrets, to be sure, he would be guilty of a breach of honor and of great indiscretion; but to give that information in a court of justice, which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever.

Sixteen years later another famous English judge lamented "that the law of privilege is not extended" to medical persons, but his view was not generally recognized as proper by the common law courts of England. Neither, in fact, did the courts in America adopt the subject of Mr. Justice Buller's lament. In 1828, however, in New York, appeared the first statutory inroad upon the common law principle of refusing to treat as privileged the confidential communications between a physician and a patient. The grounds asserted by the Commissioners on Revision of the Statutes of New York, and which have traditionally since been advanced to justify physician-patient privilege, were stated to be, in the Commissioners' own words, ". . . surely the necessity of consulting a medical adviser, when life itself may be in jeopardy, is still stronger," that is to say, stronger than the attorney-client privilege which, as we have noted, is the only one accorded by the common law. ". . . (U)nless such consultations are privileged," the Commissioners continued,

> Men will be incidentally punished by being obliged to suffer the consequences of injuries without relief from the medical art, and without conviction of any offence. Besides, in such cases, during the struggle between legal duty on the one hand, and professional honor on the other, the latter, aided by a strong sense of the injustice and inhumanity of the rule, will, in most cases, furnish a temptation to the perversion or concealment of truth, too strong for human resistance(4).

Unfortunately, it seems to me, the turgid reasons advanced by the learned Commissioners have occasioned, as we shall see, most of the criticism of the physician-patient privilege. In my view, the reason and justification for the privilege rest upon the possibility of harm to the patient through disclosure by the physician of anything which the physician learned from his patient. As will be developed in the course of these remarks, the cases themselves, while paying lip service to the justification enunciated by the Commissioners, in reality are more concerned with the possibility of harm to the patient than with the necessity for the confidentiality to exist in order that the physician may properly treat his patient.

Yet the Court of Appeals of the State of New York, passing upon the statute in 1871, said,

> It is a just and useful enactment introduced to give protection to those who were in charge of physicians from the secrets disclosed to enable them properly to prescribe for diseases of the patient. To open the door to the disclosure of secrets revealed on the sickbed, or when consulting a physician, would destroy confidence between the physician and the patient, and, it is easy to see, might tend very much to prevent the advantages and benefits which flow from this confidential relationship(5).

Obviously, at least to me, the emphasis should have been, and probably was, logically, upon the last sentence quoted.

Professor Wigmore, probably the most distinguished authority in the United States on the laws of evidence, severely criticized the physician-patient privilege in his massive work which has been accepted by courts everywhere as the last word. Wigmore asked four questions to test the basis

upon which the Commissioners and the courts had rested the justification for the privilege. These questions are :

1. Does the communication originate in a confidence ?

2. Is the inviolability of that confidence vital to the due attainment of the purposes of the relation of physician and patient ?

3. Is the relation one that should be fostered ?

4. Is the expected injury to the relation, through disclosure, greater than the expected benefit to justice ?

Professor Wigmore continues : "A negative answer to any one of these questions would leave the privilege without support. In truth, all of them, except the third, may justly be answered in the negative"(6).

The only justification for the privilege that this eminent authority could find, he phrased as follows : "The real support for the privilege seems to be mainly the weight of professional medical opinion, pressing upon the Legislature ; and that opinion is founded on a natural repugnance to becoming the means of a disclosure of a personal confidence. . . ."(7).

Of course, Professor Wigmore is concerned principally in his criticism of the privilege with the effect of imposing privilege in personal injury and life and accident insurance cases where the reason for the privilege certainly vanishes. It vanishes because, in such cases, as well as in workmen's compensation and some others, the patient himself is seeking to recover money from some other person for injuries suffered at that other person's hands. To impose the privilege in such situations is, on its face, absurd.

Nevertheless, Professor Wigmore has failed, in my opinion, to recognize within the framework of his own language, the essential basis for the existence of the privileged communication. This lies, as I have said, in the avoidance of harm to the patient should the disclosure be made. Moreover, in the 55 years since Professor Wigmore first began to write on the subject of evidence, there has been enormous increase in the scope and character of litigation, and of legislative and administrative hearings. No longer is his statement that "the physician, being called upon only rarely to make disclosures, is not consciously affected in his relation with the patient"(8) a valid one.

Nowhere is this more apparent than in the psychiatric profession. Just as the scope of judicial and quasi-judicial and legislative inquiries has increased, so has the extent of psychiatry, if not of all medicine. Thus, too, has the need for the privilege to be enforced grown.

I am bold enough to say that Professor Wigmore upon reflection would have approved of the test suggested here, for close reading of what he wrote reveals such an import to his words.

The significance of the expressed reasons for the adoption of the physician-patient privilege by statute and of the reasons advanced by the courts in support of it, when taken together with the sharp criticism of authorities like Professor Wigmore, lies in the fact that in them are signposts pointing the path to a true justification for the privilege. Inherent in the policy as enunciated by the courts and in the criticisms are suggestions for the strengthening and development of a sounder, more realistic policy, and hence, in the future, improved definition and rules of privilege.

I spoke earlier of the action of the New York State Legislature in attempting to remedy the quite outrageous result of the *Lanza* case. It now appears as a new section of the Civil Practice Act of the State of New York relating to the attorney-client privilege. Its effect is to bar the disclosure of any communication between an attorney and a client obtained by third persons through any means whatsoever. This legislative step signifies recognition, although somewhat belated, that the courts, as I have said before, impose strictures upon the application of the rules of privilege. To the extent that such recognition exists, there springs the hope that, by patient, careful analysis and presentation of the problem of medical privilege, ultimately the legislators of various states will enact a realistic policy of privilege, protecting the patient from harm through disclosure of communications to his doctor.

The courts themselves, being composed, as are legislatures, of men and not of automatons, of human beings and not of pure

theorists, have, from time to time and for a long time, appreciated that in certain instances, the imposition of strictures upon privilege is unnecessarily harsh. There is a lawyers' saying that hard cases make bad law. This is another way of stating that the wind must often be tempered to the shorn lamb. In these exceptions, too, one may hopefully see the begimnings of a newer, more positive attitude toward the question of medical privilege.

I should like to conclude by discussing two cases in the State of New York, widely separated in time, in fact, 52 years apart. Optimistically, perhaps, I feel that they open the way to a clearer, sounder, appreciation of the real basis of the physician-patient privilege.

From the first of these, *Meyer* v. *Knights of Pythias*(9), I quote the facts from the opinion :

> The deceased was *in extremis*, incapable of acting or deciding for himself, and from the necessity of the case any one was authorized to call a physician to treat him. Without the knowledge or consent of the dying man Dr. Bruso was called for that purpose and for that purpose alone he attended. He found Mr. Meyer, the deceased, in bed in an upper room of a hotel "suffering intense pain and vomiting." Meyer told him to get out of the room, that he did not want him there, but he did not leave. He remained to treat him as a physician, and in order to treat him intelligently tried to find out what the matter was. He learned from Meyer, partly in answer to questions and partly through voluntary disclosures, that he had taken a preparation of arsenic, known as Rough on Rats, "because he wanted to die." From this information, and from observation of the physical symptoms, he decided that Meyer was suffering from arsenical poisoning. Thus informed as to the nature of the disease, he at once administered a remedy and soon followed it by another. The helpless man, without friends to aid or advise, hopeless of life and courting death, objected and tried to curse him away from his bedside. The doctor, loyal to the instincts of his profession, refused to listen to the ravings of the would-be suicide and continued to prescribe in order to relieve suffering and prolong life. Upon the trial he was not allowed to disclose the information acquired under these circumstances, and we are now to determine whether there was enough evidence to warrant the trial judge in deciding, as a preliminary question of fact, that such information was acquired "in attending a patient, in a professional capacity," and that it "was necessary to enable him to act in that capacity"(10).

Since the traditional basis for upholding the physician-patient privilege has been that the disclosure by the patient of confidential communications must have been necessary to enable the physician to treat the patient, the actual question in this case was whether or not the physician, at the time he treated the deceased, stood in the relation of a physician to patient. The practical importance of the issue lay simply in the fact that the deceased held an insurance policy upon his life which was void in the event he committed suicide.

It is clear from a careful reading of the entire opinion that four of the six judges (the seventh being absent) felt that the insurance company should be required to honor its life insurance policy, a result which would have been impossible legally had the physician been compelled to testify that the deceased had taken rat poison. It is also clear that the court, in 1904, considered itself bound to achieve this result through traditional means, and thus was able to hold as follows :

> The learned doctor was called as a physician ; he attended as a physician ; he made a diagnosis as a physician and he administered remedies as a physician. In all that he did he acted in a professional capacity. While it is true that in all he did he acted against the will and in spite of the remonstrance of a man whose condition imperatively called for professional treatment, still the meeting was professional in nature, and all that he said or did was strictly in the line of his profession. Was the subject any the less "a patient" within the meaning and object of the statute, because he was forced to submit to ministrations designed to save his life ? Was the doctor guilty of assault when he gave the hypodermic injection ? Was he bound to leave him there to die without an effort to help him ? Was the statute designed to protect those only who are treated by consent, but not those treated through necessity ? Does it not mean by "a patient" at least one who is consciously treated by a physician even without his consent, when the facts tend to show that through bodily suffering his mind had partially lost its hold ? Do our humane laws make it the duty of a physician to leave the bedside of a dying man, because he demands it, and if he

remains and relieves him by physical touch, hold him guilty of assault? Either Dr. Bruso was the physician of Mr. Meyer or he committed an assault upon him and was guilty of a crime. If the wife of the deceased had called the doctor she would have acted as an agent by implied authority; the bell boy who in fact called him also acted upon implied authority, and when the doctor came the act of the agent in calling him, if subject to revocation in the actual case, would have been in the supposed case. While the doctor in either case could have retired, if he remained in either he remained as a physician, the sick man became his patient and he was acting in a professional capacity when, as a duly licensed physician, he actually treated Mr. Meyer as a patient. When one who is sick unto death is in fact treated by a physician as a patient even against his will, he becomes the patient of that physician by operation of law. The same is true of one who is unconscious and unable to speak for himself. If the deceased had been in a comatose state when the physician arrived, the existence of the professional relation could not be questioned. The relation of physician and patient, so far as the statute under consideration is concerned, springs from the fact of professional treatment, independent of the causes which led to such treatment. An examination made in order to prescribe establishes the same relation. I am of opinion that Dr. Bruso, who treated the deceased at the hotel, occupied the same confidential relation to him as did the physicians at the hospital. The fact that the patient told the doctor several times to let him alone as he wished to die, expressing himself in a brutal and profane manner, does not, in my judgment, negative the existence of the relation of physician and patient. . .(11).

The second case(12) is one of tremendous importance in the field of criminal law, for, by its decision, the court affirmed the conviction of an epileptic defendant who, while suffering from a seizure, had struck and killed several people with his automobile. Additionally, however, the court was called upon to decide a question of physician-patient privilege in the following circumstances:

The defendant, after the fatal accident, was taken to the county hospital and placed in a room at the door of which was stationed a guard who had instructions to allow no one to enter. A resident physician examined the defendant and took notes of the examination and the conversation had with him. The defendant, it will be noted, had been sent to the county hospital under police guard, he had not voluntarily gone to the hospital nor chosen the physician who attended him. On cross-examination, as the case report indicates, the physician testified "That he saw defendant in his professional capacity as a doctor but that he did not see him for purposes of treatment . . . (H)e stated that the information he obtained was pursuant to his duties as a physician; that the purpose of his examination was to diagnose defendant's condition; that he questioned the defendant for the purpose of treatment, among other things; that in the hospital they treat any patient that comes in . . . that he would say that defendant "was a patient"; that he was not retained as an expert by the district attorney or the Police Department, and was paid nothing to examine defendant; that his examination was solely in the course of his duties as a resident physician on the staff of the hospital, and that, whether or not he had a slip from the police, so long as that man was on his floor as a patient, he would have examined him"(13).

The trial court ruled that the conversation between the defendant and this physician was admissible, together with the diagnosis of the defendant's condition made as a result of the examination and the conversations. The theory of admissibility was that the physician, on the basis of the circumstances of his visiting the defendant, did not stand in the relation of a physician to a patient. In considering this contention, the Court of Appeals, as opposed to the trial court, relied heavily on the fact that the police guard stood at the doorway to defendant's room and overheard the conversation between the physician and the defendant. But in order to reach that question, it was necessary for the court to determine in the first instance whether the physician-patient relationship existed. Following tradition, the Court of Appeals found "that the information here given by the defendant was necessary for his treatment"(14).

Having disposed of that question, the court turned to the legal effect of the presence of the guard at the doorway to defendant's room, and thereupon found that while the ordinary rule is that the presence of a third person destroys the privilege, in the instant case, the third person was there by command of the public

authorities. The court further found that since the communication was intended to be privileged because the physician-patient relationship had been established, the presence of the third person commanded by public authorities to be there, did not destroy the intention that the communication was confidential. The conclusion of the court, therefore, was that the privilege should have been upheld by the trial court, and in consequence, the evidence should have been excluded. In my opinion, the court arrived at the morally right result for purely traditional reasons.

What these two cases, 52 years apart, do, in my view, is to express legally what I first referred to as a sense of fair play, if not morality, which instinctively leads a person to respect the confidences of another. Morally, it is right and proper that such a rule should obtain, but, as I said before, principles of morals and ethics, to have real force in human society, must have the sanction of law.

Law, as we know, is the province of the lawyers, and they are limited by their own particular training. They have to view the problem of enforcement of moral and ethical principles within the framework of their experience, that is, within the framework of their continuing search for truth in order that legal rights may be enforced. As psychiatrists, you know the extent to which the human mind can rationalize and fabricate, especially where a self interest of the speaker is involved. The courts and lawyers have for centuries built up the process of examination and cross-examination as a defense against this human fallibility. Whether or not it is the best system that can be devised makes little difference. The point is that the system exists and its framework and structure is of ancient origin. Hence, we have strictures and strict application of any rule affecting the process.

It is only through wider and vaster experience in given situations—some of which I have discussed with you—that there comes into being a different attitude, if not an acceptance, of newer ways of treating an old problem. The whole development of the concept of privileged communications shows this kind of slow change. In this development, there is hope, if not promise, that the field of privileged communications, in particular the medical privilege, may some day rest upon a sound principle which has as its sole criterion, possible harm to the patient.

BIBLIOGRAPHY

1. *Lanza* v. *New York State Joint Legislative Committee on Government Operations*, 3 N. Y. 2d 92.
2. For a full and complete record of Father Garnett's trial, see *The Lion and the Throne*, Catherine Drinker Bowen, Atlantic-Little Brown & Co., 1956, pp. 99, 100, 249, 250, 261-268.
3. *Duchess of Kingston's Trial*, 20 How. St. Tr. 573.
4. *Commissioners on Revision of the Statutes of New York*, 111, 737.
5. *Edington* v. *Ins. Co.*, 67 N. Y. 185, 194.
6. *Wigmore on Evidence*, 3d Ed., Vol. 111, p. 811.
7. *Wigmore on Evidence*, 3d Ed., Vol. 111, p. 813.
8. *Wigmore on Evidence*, 3d Ed., Vol. 111, p. 813.
9. 82 App. Div. 359, affd. 178 N. Y. 63.
10. 178 N. Y. 63, 65-66.
11. 178 N. Y. 63, 66-67.
12. *People* v. *Decina*, 1 A.D. 2d 592, affd. 2 N. Y. 2d 133.
13. 2 N. Y. 2d 133, 137.
14. 2 N. Y. 2d 133, 143.

DISCUSSION

BERNARD L. DIAMOND, M.D. (San Francisco, Calif.)—The problems of privilege communication and confidentiality are becoming most pressing in California, insofar as psychiatrists are concerned. Mr. Stern has given us a clear resumé of the historical and legal aspects of privilege which should prove valuable to us in our attempts to remedy the shortcomings that now exist. Many psychiatrists practice under the illusion that their knowledge of their patients and their medical records are protected from any violation of confidence. But, as Mr. Stern has described to you, this is not necessarily so. There are many situations in which the psychiatrist is required by law to breach the confidence of his patients, and our own ignorance of the legal principles involved has prevented the safeguarding of that most essential element of psychotherapeutic practice—the trust and confidence of our patients.

Only a short time ago, the district attorney in a certain California city obtained a search warrant and demanded that the psychiatrists turn over to him the record of a patient who

was in legal difficulty. I understand that the legality of this move is being challenged and it still may be possible to prevent such evidence from being introduced into the actual trial. But even so, it represents the grossest violation of medical confidentiality. However, in those states, like California, which do not have statutory provision for privileged communication between doctor and patient in criminal cases, it can be expected that more and more such attempts will be made to get at the psychiatric records.

It is heartening that Mr. Stern has the courage to challenge the traditional views of Professor Wigmore. Wigmore, as the greatest authority on rules of evidence, had dominated legal thinking to the point where almost all courts follow his narrow views of medical privilege. But it is now clear that modern psychotherapy requires special protection of the confidences of our patients so that the objections of Wigmore to the extension of privilege cannot logically apply to our profession. It is ironic that clinical psychologists in California now have much greater legal protection than do psychiatrists. The recently passed "psychology bill" gives to the psychologist-client the same rights of privileged communication that apply to attorney-client relationships. The psychiatrist and his patients, however, continue under the general rules of medical privilege, which does not include protection where there has been a criminal offense.

Dr. MacCormick has described the remarkable situation that exists within the penal institutions of California, whereby the confidences of the prisoner-patients are fully respected despite the prison environment and despite the lack of formal legal protection of privilege, thereby making possible a truly effective therapeutic relationship.

Dr. MacCormick has been the leader for many, many years in the struggle to obtain such enlightened attitudes in our prison system. But I think it would be better if the special requirements of prison psychiatry were to be formally provided for by suitable laws, rather than having to rely upon the good will of prison administrators and the fighting spirit of such pioneers as Austin MacCormick. Administrations change, and policies shift. Too much is at stake to permit the prison psychiatrist being forced back into his old role of sorter and classifier—an agent of punishment rather than rehabilitation.

LAWRENCE ZELIC FREEDMAN, M.D. (New Haven, Conn.)—The problem of privilege as it applies to communication is at the core of the problem of psychotherapy. There can be no psychological treatment without confidences exchanged and, to be worthy of this, the doctor must promise confidentiality. This, however, he cannot do so long as the law denies his patient the privilege of privacy.

Mr. Stern reminds us that the privilege of psychiatric privacy is not ours but the patient's and further that common law does not extend this privilege to either. To most psychiatrists these propositions come as a dismaying shock. The rule which Mr. Stern proposes to guide the legislator and the judge harmonizes well with the guiding principles of medicine : he suggests that avoidance of harm to the patient be the criterion by which the law calibrates its statutory restrictions and its judicial demands. Anachronistic law may be self-defeating and socially harmful by forcing psychiatrists to keep scientifically inadequate records in order to be certain that they will, under any circumstances, be able to maintain the patient's trust. Surely here is a demonstration of how poor law not only fails to attain its own implicit or expressed goals but sets up harmful reverberations in areas of social activity seemingly removed from it.

With considerable courage—since there is by no means unanimity amongst penologists—Professor MacCormick affirms his belief in the necessity for absolute confidentiality in what is probably the most situationally paranoidal therapeutic relationship : psychiatry in prison. He vigorously asserts the essential quality of such confidentiality not only on moral grounds, but on the positivist basis that without it prisoners could not be treated. However, he concludes with his belief that a "line must be drawn" and he leaves it to the "common sense . . . professional ethics . . . and strong conscience" of the psychiatrist to decide where to draw the curtain. He would have us disclose serious planned criminal activity. We can understand Professor MacCormick's dilemma. Unfortunately to eliminate from the guarantee of shared secrecy, anticipations of future behavior if they are potentially socially destructive, is to impose precisely the impediment to free communication which he seeks to avoid. For psychotherapy is in its aim future-oriented even though its technique is historical. May revelations yielded under the impact of transference, on promises of semantic sanctuary be publicly exposed if they turn out to be socially dangerous? The question is neither simply asked nor resolved. It is my personal conviction that it is not the role of the psychiatrist to uncover such information under the guise of therapy if he expects to expose it to the warden. I cannot help feeling that disclosure

under these circumstances is a sort of "psychic entrapment." The physician ought either to warn his patient beforehand of the reservations he has concerning confidentiality or, having committed himself to secrecy, he should maintain it.

It would, however, be self-deception were we psychiatrists simply to see ourselves as heroically guarding our professional confidences. It is far easier to tolerate conflict, to view with objectivity, when we are combatting opposition outside ourselves. It becomes much more difficult when the external pressure is removed. Then, our ambivalences are revealed and what seemed to be clear cut dichotomies blend tantalizingly into the most subtle shadings. For if we win this skirmish to maintain the privacy of our patients' revelations against official exposure then we must begin the complex and important travail of defining the limits of confidentiality which we ourselves can maintain consistent with our professional commitment, our ethical values, and our social responsibilities. How much should be revealed not only to legal authorities but to our colleagues, to intimate members of the family, to the patient himself? What risks of breach of confidentiality are warranted in reports for scientific papers and publications, teaching, in the keeping of records, in the transmission to social and public agencies? Many psychiatrists will be aware that they have not completely resolved such questions; that they have a rather amorphous, intuitive, often opportunistic approach. Each psychiatrist must make some answer and it is better that he do it with full awareness of its implications than murkily with only a dim sensibility of the meaning of his posture. It is toward this end that this symposium has contributed significantly.

GROWTH OF PSYCHIATRISTS DURING AND AFTER RESIDENCY TRAINING: AN OBJECTIVE EVALUATION [1]

HERBERT C. MODLIN, M.D., WILLIAM BENJAMIN, M.D.,
S. BURRITT LACY, M.D., BERNARD H. HALL, M.D., AND JOSEPH SATTEN, M.D.[2]

The residency training center in Topeka, Kansas, known as the Menninger School of Psychiatry (MSP), since its inception in 1946, has studied selected aspects of psychiatric education in order to improve its teaching functions. The first major project, now completed, was a systematic evaluation of the selection process whereby young physicians are screened for acceptability in residency appointments. A series of reports issuing from that project have culminated in a recently published book(1).

This paper concerns a second project designed in 1951 to assess objectively the growth and development of psychiatric residents during and after training, that is, to study the impact of the residency experience on them. A paper describing our hypotheses, methods, data, and conclusions from the first 3 years' effort has been published(2). This is to report additional data from the use of revised methods during the past 2 years. In our previous report we stated that our research "was based on the following hypothesis: since the basic purpose of a teaching program is to facilitate the learning process in its students, the value and effectiveness of a program can be tested by measuring the learning which the students have realized." Corollary to this hypothesis is the idea that different kinds of learning occur at different points of time during and after training.

In testing this hypothesis, our first step was to prepare and administer annual written examinations to our 100 residents. We started with techniques that would yield quantifiable findings, and are proceeding in a search for further hypotheses and ultimately more sophisticated techniques. Data obtained from our research thus far are presented below as preliminary answers to the following questions:

Is there a discernible pattern of growth in psychiatric residents, year by year?

What kinds of psychiatric knowledge are most readily assimilated by residents?

What kinds are most difficult to learn?

What aspects of professional development continue after residency training?

In what ways do practicing psychiatrists differ from residents?

Is there measurably better scoring on this examination by psychiatrists who have studied for and successfully passed Board examinations (American Board of Psychiatry and Neurology)?

Are there discoverable differences between graduates of Psychoanalytic Institutes and psychiatrists without Institute training?

INVESTIGATIVE METHODS

The examination. At the start, the committee used a variety of stimulus material in the annual examination, including films, case studies, essay and objective questions. With the advice and aid of our consultant, Dr. Cowles, we have concentrated in the past 2 years on multiple choice examinations. Our research instrument is essentially to test knowledge rather than to explore such other important competences of a psychiatrist as emotional stability, capacity for empathy, and professional integrity. It is a mistake, however, to assume that objective tests reveal only factual knowledge: Cowles and others(3, 4) have shown that specially constructed objective examinations can also test such functions as understanding, concept formation, and judgment. Multiple choice questions more nearly define the limits of the examinees' knowledge than do open-ended, essay questions since they extract "forced" answers.

[1] Read at the 114th annual meeting of The American Psychiatric Association, San Francisco, Calif., May 12-16, 1958.

[2] The authors, faculty members of the MSP, Topeka, Kans., comprise the Educational Research Committee of the MSP, and in this paper are referred to as "the committee". We are indebted for valuable help to our consultant, John T. Cowles, Ph.D., University of Pittsburgh, and our statistician, Miss Lolafaye Coyne, of the Research Department of the Menninger Foundation.

In 1956 and 1957 we prepared 100 multiple choice questions covering the basic subject matter of psychiatric education, each question comprising a stem statement and 5 answers, only one of which was correct. The 1956 questions were equally divided among questions of fact (33), theory (33), and clinical application (34). In 1957 we concentrated on questions of clinical application (68) by composing brief case vignettes and asking a number of questions about each case designed to test, especially, clinical judgment, knowledge of ward management, therapeutic ingenuity.

Typical samples from the 3 categories are the following :

(Fact) The psychiatrist who first separated involutional melancholia from manic-depressive psychosis was :
a. Bleuler, b. Freud, c. Kraepelin, d. Janet, e. Meyer.

(Theory) The most important single factor in producing the psychological phenomenon known as "the tyranny of the super ego" is :
a. Unconscious hostility on the part of the parents toward the child,
b. Projection of the child's hostility onto the parents and the introjection of these now feared figures,
c. Cruel treatment by hostile, nonloving parents,
d. Development of castration anxiety,
e. None of these.

(Application) A 50-year-old farmer with the diagnosis of simple schizophrenia makes a passive, compliant adjustment to the hospital, reluctantly accepting ward housekeeping duties and watching television whenever he can. The new ward physician begins to insist that all patients perform their tasks with promptness and precision, and rigidly controls this patient's tendency to procrastinate. A few days later the patient strikes a relatively helpless, slow-moving fellow patient. The patient's bland explanation for his action is that his victim stood in front of the television screen and did not move away even though requested more than once to do so.

Which of the following statements is *least* helpful in understanding the behavior of the combative patient ?
a. His schizophrenic distortion of reality allows him to express overt aggression without guilt feelings.
b. The patient identified himself with the doctor and adopts a rigid, punishing attitude.
c. He was provoked in a particularly painful way by the actions both of the doctor and of his fellow patient since television is one of the major gratifications for this emotionally isolated patient.
d. He displaces his anger aroused by the doctor's demand for more effort in his work onto an innocent bystander.
e. He is unconsciously inviting punishment for his hostile fantasies about the physician.

Assuming this to be the patient's first incident of overt violence for several months, what would probably be the best response for the ward physician to make ?
a. Assign the patient to O.T. activities providing an outlet for aggression.
b. Explain to the patient that such aggressive action might result in physical injury to his relatively helpless fellow patient.
c. Seclude the patient for two hours with a warning to avoid such behavior in the future.
d. Instruct the ward staff to watch the patient closely for further aggressive behavior.
e. Encourage the patient to talk with him about the incident.

This examination was intentionally limited to the basic psychiatric subjects, such as psychopathology, hospital treatment, and psychotherapy, that are introduced to first year residents. Thus by testing first and second and third year residents with the same questions regarding these subjects, we sought to discover the extent of additional knowledge a resident garners from supplemental experience as he advances through training. Questions to test knowledge of such topics as forensic psychiatry, research methodology, industrial

psychiatry, and hospital administration were not included since they are taught chiefly in the third year; and comparison of first and third year residents would have been pointless.

Groups tested. Our primary focus was on the comparative performance on the same test instrument of first, second, and third year trainees; but in order to broaden our perspective of professional growth, we procured 7 groups of subjects in all:

1. Beginning residents in their first week of psychiatric training

2, 3, 4. Residents at the end of their first, second and third years of training

5. Junior staff who had completed psychiatric training no more than 3 years previously

6. Senior staff who were diplomates of the American Board of Psychiatry

7. Board certified alumni of the MSP who had been in practice at least 4 years

The MSP now consists of about 135 residents in training distributed among the 3 parent institutions (Topeka State Hospital, Topeka VA Hospital, Menninger Foundation) and 4 other affiliated institutions. The full-time faculty of 150 includes 75 psychiatrists plus clinical psychologists, social workers, and others. The only faculty members invited to participate in this educational research were staff psychiatrists in hospital or outpatient practice; those specializing in child psychiatry, research, psychoanalysis, or hospital administration were not included. The number (N) in each test group in 1957 was: beginning residence, 27; first year, 41; second year, 33; third year, 21; junior staff, 23; senior staff, 16; alumni, 60. Figures for 1956 were similar.

Processing of data. The inherent nature of the multiple choice questions forced the committee to choose a "correct" answer for each item. Not wishing to convey, however, that we actually knew the right answers, particularly for the clinical questions, we decided to use the senior staff as a criterion group, accepting their consensus as the "correct" answers to these questions. To our surprise, at least 50% of the senior staff agreed with us 93 times, that is, selected the same answer we did. Upon reviewing the 7 questions on which there was disagreement, we decided that the staff opinion was correct on 4, and stood by our own original answers on the remaining 3.

The 100 questions were analyzed in two separate patterns. We first categorized all the questions as to fact, theory, and clinical application, and evaluated the performance of each of the 7 test groups within each category. We then divided the questions according to subject matter as follows and studied the responses statistically: 1. Psychodynamics, 2. Psychopathology, 3. Ward Management, 4. Clinical Judgment, 5. Psychotherapy, 6. Psychiatric neurology, 7. History of psychiatry.

We determined, by standard statistical methods, those questions also that most clearly differentiated senior staff from third-year residents, and those that differentiated poor third-year students from superior third-year students.

Our statistical methods included analysis of variance, single classification; chi square; Duncan's test; Fisher's exact test, one-tailed and two-tailed.

RESULTS

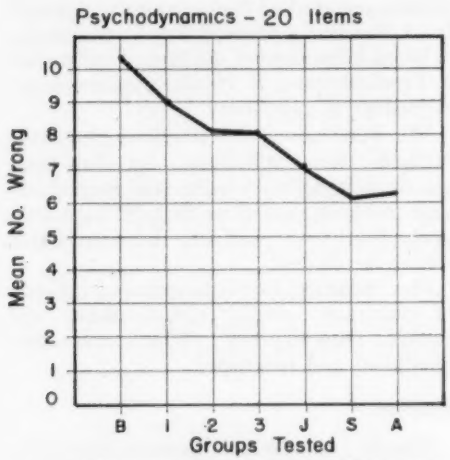
The 10 figures which illustrate this paper are identical in form. The vertical line (ordinate) indicates the mean number of questions answered wrong by each test group. The legend for the points of the horizontal line (abscissa) are, B, beginning residents; 1, 2, 3, residents at the end of the first, second, or third year of residence; J, junior staff of the MSP; S, senior staff of the MSP; A, MSP alumni. Alumni were added to the test groups for the first time in 1957. Beneath each graph is noted those differences among test groups of highest statistical significance. The formula, $P>.01$, means the probability (P) that this result is due to chance is less than one percent.

The line or curve in each figure is essentially the same for both the 1956 and 1957 examinations, lending validity to our results. Figures 8, 9 and 10 illustrate this similarity; thus for simplicity only one curve for the 2 years appears in Figures 1 to 7.

Psychodynamics. In general each test group performs better than the one chronologically preceding it. Only in this psychodynamics category is this uniform

downward curve obtained. Very similar results on psychodynamics were obtained in the 1952-54 examinations through essay questions: steady but unspectacular improvement year by year. In Figure 1, staff and alumni score nearly equally as they do on every other category but one. Second and third year residents also score equally (8.1 and 8.0) on the 1957 examination shown here. On the 1956 examination (psychodynamics, 17 items) there was a larger difference (5.2 and 4.1). Knowledge of psychodynamics is not easily learned and seems directly related to the duration of the individual psychiatric experience at least for the first 6 or 7 years. We assume that su-

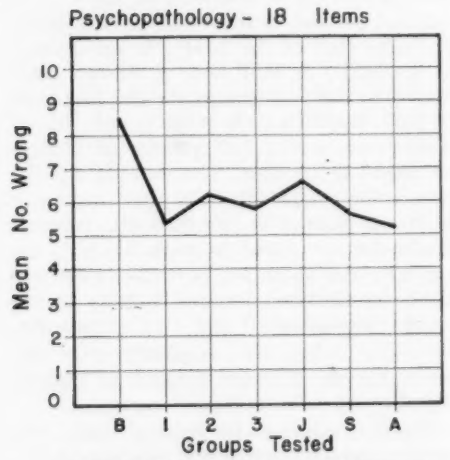
Figure 1



Statistically Significant Differences

2 Differs From B(P>.05)
S Differs From 3(P>.05)

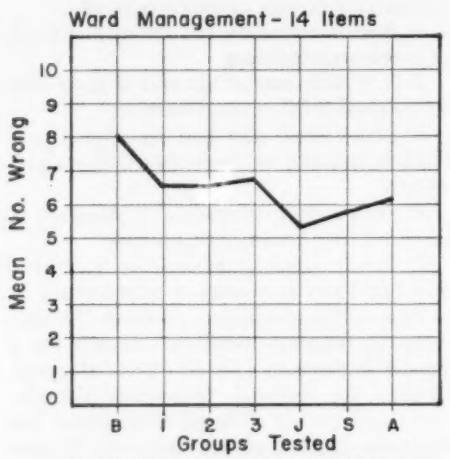
Figure 2



Statistically Significant Differences

1 Differs From B(P>.05)

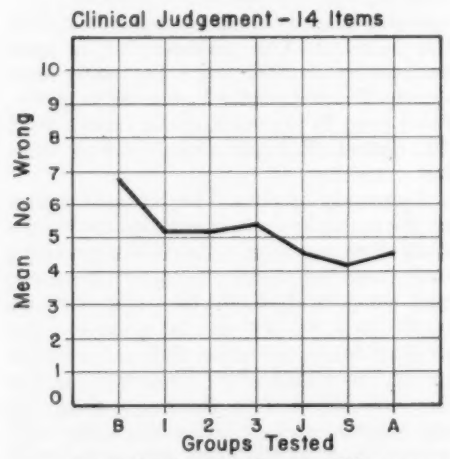
Figure 3



Statistically Significant Differences

1 Differs From B (P>.01)
J Differs From 1,2,3 (P>.05)

Figure 4



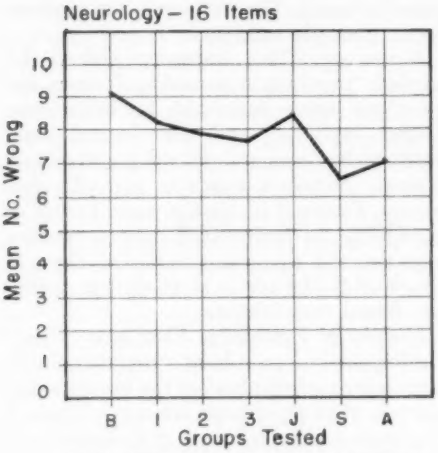
Statistically Significant Differences

1 Differs From B (P>.01)

periority of staff and alumni over residents is partly, but not entirely, due to psychoanalytic training.

Psychopathology. Figure 2 suggests that testable knowledge of psychopathology reaches a maximum by the end of the first year of residency and is not augmented by further training and experience. This curve seems to mirror the impact of a specific MSP didactic first year course on the subject since there is no other organized presentation in subsequent years. Figures 1 and 2 together suggest that psychopathological topics such as autistic thinking, mechanism of depression, and counterphobic maneuver are more fully grasped

Figure 5

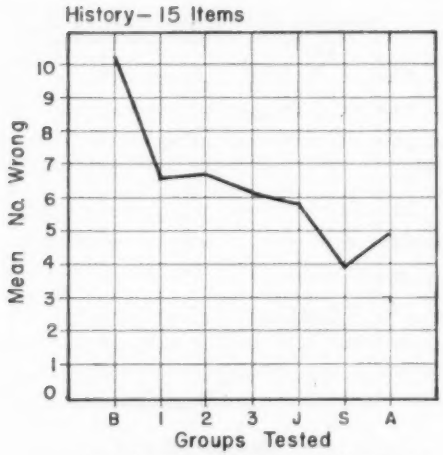


Statistically Significant Differences

S Differs From 1 and 2 (P>.05)

S Differs From J (P>.05)

Figure 6

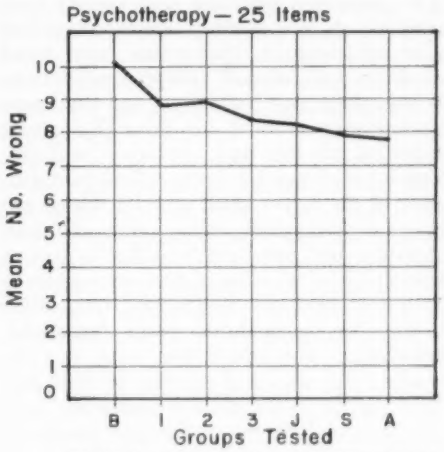


Statistically Significant Differences

1 Differs From B (P>.001)

S Differs From 1, 2, 3 (P>.05)

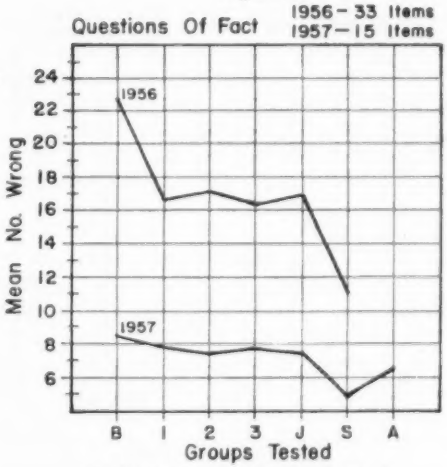
Figure 7



Statistically Significant Differences

None

Figure 8



Significant Differences (1956)

1 Differs From B (P>.001)

S Differs From 3 (P>.05)

by neophyte psychiatrists than the psychodynamics of ego integration, super ego tyranny, and primary process.

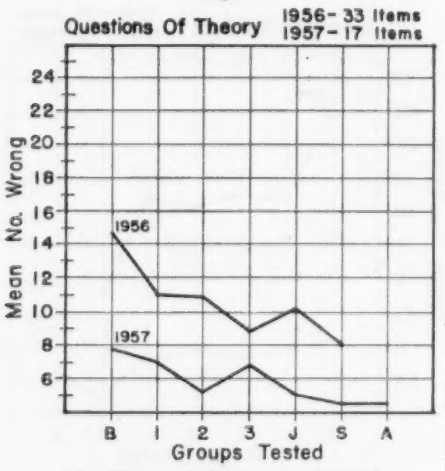
Ward Management. The learning curve in Figure 3 demonstrates no improvement in knowledge of ward management by second and third year residents. Third year men engage chiefly in extramural psychiatry and might not be expected to change from the second year in this category; but it is somewhat puzzling that second year residents do not develop beyond their first year achievement. Distraction from ward work by new second year preoccupations in neurology, psychotherapy, and child psychiatry may account for this. That much more could be, and probably will be, learned is shown by the excellent performance of the junior staff, most of whom are hospital psychiatrists. Since senior staff and alumni scored comparably well also, mature knowledge of ward management appears to be a post-residency realization. In our 1955 testing by open-ended essay questions, knowledge of hospital treatment was revealed in an identical pattern. In 1953 and 1954 the residents made a uniformly poor showing. In 1958 the uniformity remained, but the overall score was good; that is, in this category, residents answered 60% of the questions correctly and scored only slightly lower than the senior staff.

Clinical Judgment. The curves of Figures 4 and 3 or very similar; and lack of significant growth after the first year is evident again in this category. The questions devised to test clinical judgment were appended chiefly to case vignettes of hospitalized patients and tested the examinee's ability to take action in the face of problems precipitated by the patient's verbal or other behavior. The staff tended to perform better than the residents.

Neurology. This category should be labeled "psychiatric neurology," since the questions were restricted to brain syndromes, epilepsy, and neurological diagnostic techniques, and did not involve brain tumors, multiple sclerosis, or muscular dystrophy. Figure 5 illustrates some fading of knowledge in junior staff, and a striking improvement in senior staff and alumni; conceivably the result of study for American Board examinations.

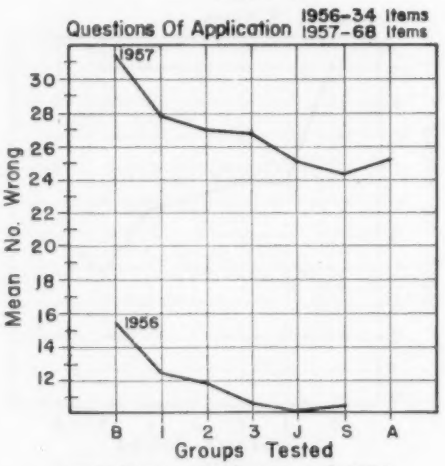
History of Psychiatry. First year fellows participate in a year-long seminar on basic psychiatry that emphasizes the historical development of psychiatric concepts. Figure 6 demonstrates the influence of that course. A trend to increasing historical knowledge in the next few years accrues in a significant gain for senior staff and alumni, again in-

Figure 9



Significant Differences (1956)
1 Differs From B (P>.001)
S Differs From J (P>.05)

Figure 10



Significant Differences (1957)
1 Differs From B (P>.05)
Staff Differs From Residents (P>.05)

cidentally suggesting the effect of cramming for Board certification.

Psychotherapy. As is true of all the categories, residents performed much better at the end of the first year than beginning residents (Figure 7). There is a consistent trend toward betterment with experience although the differences among test groups are not statistically significant. A different type of question gleaned the same result in the 1952-54 project: first and second year residents scored identically, third year improved slightly. We do not know what relationship this curve has to actual psychotherapeutic competence with patients.

Questions of Fact. Figure 8 graphically demonstrates the amount of factual knowledge first year residents assimilate. According to our findings no appreciable growth in ability to answer factual questions occurs during the rest of residency training. In considering this result one must remember that our examinations tested only "basic" psychiatric knowledge. Second and third year residents do supposedly acquire new factual and technical knowledge beyond the first year's acquisition; but in specialized areas such as child psychiatry, forensic psychiatry, or research methodology. This category (fact) is heavily loaded with questions on neurology and history of psychiatry and therefore is a composite of Figures 5 and 6. The 1956 curves resemble the 1957 curves except between beginning and first year students. This difference is explained by (a) the greater number of items (33) in 1956—which magnifies the differences—and (b) normal variations in capacity between any two beginning classes of residents. After the initial phase of training however, differences between classes as a whole tend to level off.

Questions of Theory. An improvement trend, year by year, is noted in Figure 9, but no rocketing gains in knowledge are observable except between beginning and first year Fellows in 1956. The senior staff and alumni come out best, attesting that digestion of theory is a gradually advancing process.

Questions of Application. The trend toward improvement from beginners to seniors is convincingly demonstrated in Figure 10 by the identical curves for 1956 and 1957 and by the statistically significant differences between staff and residents. The previously illustrated categories of clinical judgment (Figure 4), ward management (Figure 3), and psychotherapy (Figure 7) show only trends of improvement; but when they are combined as questions of clinical application, the trends become a significant difference in the aggregate. Apparently general clinical psychiatric ability *can* be tested. That learning curves in Figures 10 and 1 are almost identical, suggests a close correlation to support our view that understanding of psychodynamics is important for obtaining a good "grade" in clinical application.

Residents versus Staff. We searched for those questions we hoped would best differentiate senior staff from third year residents and indicate the kinds of learning that take place after residency training. We identified 10 questions from each of the two yearly examinations in which the staff significantly transcended the third year students. These questions proved to be concerned with details of factual knowledge, chiefly history. They were not, as we had expected, questions which tested clinical judgment or psychotherapeutic acumen.

Good versus poor students. After dividing the third year class on the basis of total examination score into upper and lower halves, we identified the half dozen questions from each of the two examinations which most nearly differentiated good from poor examination performance. These were questions on clinical judgment and theory, not factual questions—an interesting contrast with the questions that differentiated staff from third year residents.

DISCUSSION

The first year. Residents who have finished their first year's training surpass beginning residents in every category, and to a highly significant degree in most. The least differentiation is in neurology and psychotherapy. In specific content categories the greatest differences are in psychotherapy and history, but in each of the 3 overall categories (fact, theory, application) the significant improvement of first year over beginners is striking. The first year of residency is the period for absorb-

ing the psychiatric body of knowledge, theoretical as well as factual. We consider that the primary motives behind the studiousness of the first year resident are 1. His desire to identify himself with psychiatry, his chosen specialty, and 2. His need to combat the anxiety engendered by the disturbing emotionally-charged clinical and didactic experiences. A belief in order, fact, explanation, theory—in short, structure—carries the average resident through his trying first year introduction to "crazy" people, the phenomenon referred to as the unconscious, and the effect of countertransference.

Second and Third Years. The bulk of factual knowledge is accumulated during the first residency year. The multiple choice technique fails to disclose significant growth and development of second and third year residents in basic psychiatric knowledge. Rank order correlation studies in our 1955 paper(2) produced substantially similar findings. This seemingly static state is particularly evident in ward management, clinical judgment, and psychopathology. Trends toward improvement from first to third years are noticeable in the other content categories, particularly psychodynamics; but there is no statistically significant advantage of third over first year men in any tested area. Staff observers of residents generally agree that second and third year Fellows are less anxious than beginners, less dependent on book learning for support, and more intent on development of the self in doctor-patient interaction. Here we must reiterate that the examination explores only the subjects' fund of basic psychiatric knowledge. It does not investigate at least two other broad areas in which residents almost certainly grow: 1. Acquisition of knowledge in special areas such as psychosomatic medicine, clinical neurology, and psychiatric social work; 2. Personal development in such subtle skills as interviewing and psychotherapy.

Post-residency development. A comparison of junior staff with third year Fellows shows no significant progress after residency training except in ward management. A slight trend of improving junior staff performance occurs in psychodynamics, history, and clinical judgment, and of fading in neurological knowledge. All in all, men one to three years out of training do as well as, but little better than, third year Fellows: factual knowledge neither fades particularly nor accumulates appreciably so far as our tests show.

The senior staff and alumni present a different picture, exceeding third year residents in every category. It is in those categories where there is a substantial body of knowledge, *e.g.*, history of psychiatry and psychodynamics, that the senior men transcend the residents. The smallest differences apply in the less factual, more judgmental subjects of ward management: clinical judgment, and psychotherapy.

We were mildly surprised to discover the superiority of senior staff over other groups on the factual questions, (Figure 8). We had assumed that the psychoanalytically trained senior staff, engaged chiefly in psychotherapy might even be inferior to third year men on academic questions. True, many of the seniors are clinical and/or didactic teachers; but our alumni in private practice are, as a rule, not; and they too surpassed third year men and junior staff. Explanation for the fine academic showing of seniors and alumni seems quite simply that they are all Board certified. The American Board of Psychiatry and Neurology has contributed in many ways to the development of psychiatrists, not the least beneficial of which is through its impelling the aspirant to review the substance of knowledge he first met as a resident. After the second time around, the material is retained more successfully.

Senior staff versus alumni. Comparison of the institution-associated teaching staff with our alumni in private psychiatric practice evinces outstanding similarity of examinational performance. Only one statistically significant difference was recorded; staff excelled alumni on questions of fact ($P>.01$). Basic subject matter of psychodynamics, psychopathology, clinical judgment, and psychotherapy is as available in the minds of the alumni as of the senior staff.

Psychoanalytic training. Formal education after residency may be continued in psychoanalytic institutes. One effect of this training is clearly revealed by our examina-

tion to be proficiency in theory. Of our staff examinees, 22% of juniors, 50% of seniors, and 35% of alumni are candidates or graduates of a psychoanalytic institute. The alumni in private office practice were divided into 2 groups, with and without psychoanalytic training, and a statistical comparison was made on all test categories. Those with psychoanalytic training scored much better on questions of theory ($P > .01$), involving the sub-categories of psychodynamics ($P > .10$), and psychopathology ($P > .10$). Insofar as statistically non-significant trends are of value, the alumni without psychoanalytic training did better on neurology ($P > .10$), psychotherapy, and general clinical judgment. They also excelled junior staff and third year residents in psychodynamics and psychopathology but in a lesser degree than did the psychoanalytically trained psychiatrists.

The examination. From our experience, we consider the multiple choice question efficient for testing substantive knowledge and some aspects of clinical judgment. It indicates the limits of the examinees' knowledge more accurately than the essay question whether oral or written. Multiple choice examinations are not easy, nor indeed need be. In spite of our examinees' knowing that the correct answer to each question was on the printed sheet before them, the best paper turned in contained only 80 correct answers. Eighteen percent of our 210 subjects missed from 20 to 30 of the 100 questions; 82% missed from 30 to 65. In the 1952-54 examinations we experimented with a variety of question forms, but principally the essay type. The essay question may be termed a minimal stimulus question; that is, it is intended merely to ignite the examinee's thinking on a given topic. His exposition will be mostly smoke, or a brief sputter that promptly dies out, or a bright, steady flame, according to the fuel he can gain access to from his own woodpile of knowledge. Common practice among instructors, in grading a testee's essay answers, is to deduct for what he left out, that is, for aspects of the subject not spontaneously available to him. The multiple choice question provides maximal stimulus to recall known material since it forces an answer and thus may tap subliminal knowledge of the examinee.

Supposing that different techniques used in the 1952-54 study as compared with the 1956-57 effort might conceivably show different growth patterns of the testees, we found that they did in a few minor respects. The answers to the essay questions revealed, in a way that multiple choice questions did not, the superior ability of third year residents to use their psychiatric knowledge clinically. First year residents, with comparable knowledge but uncertainty of its use, are less facile in its application. The third year man's knowledge has become more successfully integrated in his professional functioning.

The multiple choice and essay examinations we have used for the past 7 years can reveal the effect of specific didactic courses; for example, the first year courses on psychopathology and history of psychiatry, and our first and second year teaching of psychodynamics. They can also document increasing adeptness of third year residents and staff in integrating and applying psychiatric knowledge clinically. In a strictly clinical area they can communicate the effect of certain clinical assignments and preoccupations; for example, the performance of first year residents and junior staff on ward management. In some areas they can only suggest trends in professional development of test groups; *e.g.*, in neurology and psychotherapy. Within their inherent limitations, they can aid instructors in assessing the factual knowledge and theoretical concepts their students have learned. We propose that there is a relationship between such knowledge and clinical performance in psychiatry; but its exact dimensions are far from known by us.

Our next project will inquire into what other kinds or patterns of growth occur in student and post-student psychiatrists; and how these can be identified and evaluated. We are in the process of devising research techniques that we hope will enlighten us regarding factors contributory to residents' superior and poor clinical performance. As a first step in this direction we are studying with clinical supervisors their criteria in evaluating the clinical effectiveness of student psychiatrists.

Summary and Conclusions

For the past 7 years the Educational Research Committee of the psychiatric training center in Topeka, Kansas, has attempted to evaluate objectively (a) the impact of psychiatric training on residents and (b) the post-residency development of psychiatrists. Our initial project was confined to a study of the development of psychiatric knowledge, factual, theoretical and clinical, in our test subjects. The first year's efforts were reported in 1955(2). This paper describes our 1956-57 project in which we devised 100-item multiple choice questions and administered them to 7 test groups: beginning residents in their first week of training; residents at the end of their first, second and third years; junior hospital staff psychiatrists; senior staff psychiatrists (Board certified); our Board certified alumni in private practice. The examination investigated knowledge only in basic subjects such as psychodynamics, psychotherapy and ward management, but not subspecialties such as psychosomatic medicine, research methodology and forensic psychiatry.

There is a discernible pattern of growth in psychiatric residents, year by year. The first year of training is *the* period for absorbing the psychiatric body of knowledge. Second and third year residents, and junior staff psychiatrists, perform slightly better than first year residents in most categories; on the whole, however, a remarkable lag in acquisition of basic psychiatric knowledge is evidenced by residents' scores, the one exception being the steady yearly improvement in knowledge of psychodynamics. Although advanced residents seem not to acquire much additional knowledge, the examination reveals a process of integration and facility in using it clinically which first year residents lack.

A second significant development in useable knowledge coincides with the period of concentrated preparation for passing the examinations of the American Board of Psychiatry and Neurology. The Board certified psychiatrists exceed our other test groups in factual, theoretical and clinical knowledge. Post-residency psychoanalytic training produces a measurably greater proficiency in theory.

BIBLIOGRAPHY

1. Holt, Robert and Luborsky, Lester: Personality Patterns of Psychiatrists. New York: Basic Books, 1958.

2. Modlin, Herbert C.: Bull. Menninger Clinic, **19**: 139, 1955.

3. Cowles, John T.: J.A.M.A., **155**: 1383, 1954.

4. Lindquist, E. F.: Educational Measurement. Washington, D. C.: Amer. Council on Education, 1951.

CURRENT THEORETICAL CONCEPTS IN PSYCHOSOMATIC MEDICINE [1]

HAROLD I. KAPLAN, M.D. AND HELEN S. KAPLAN, PH.D.[2]

Before discussing current theoretical approaches in psychosomatic medicine, we think it would be salutary to play devil's advocate for just one moment. We should like to point out that a definite and significant causal relationship between psychological factors and true organic ailments is as yet merely an assumption. Psychogenesis in physical illness has never, to our knowledge, been rigorously proved. However, the assumption of a significant psychosomatic relationship rests on a great deal of what appears to be solid circumstantial evidence, and, furthermore, such a relationship is very attractive from a theoretical standpoint. Psychosomatic theoreticians therefore agree in assuming that psychic factors play a noteworthy etiological role in many common ailments. There is, however, little agreement about the basic mechanisms by which psychological and physical factors interact to produce disease. *There is, in fact, currently no one theory, construct, or set of variables adequate to explain the observed and assumed relationship between psychological difficulty and physical malady.* Indeed, even the definition and limitation of what constitutes a "psychosomatic disease" is controversial. For example, some workers consider every disease *psychosomatic* in that psychic and somatic phenomena are two aspects of the same process, and, since all disease is multicausal, psychic factors must play some role in every pathological process(1). Others feel that the definition should be limited to those disease processes in which psychic factors are assumed to play a *major* etiological role. In this paper we shall restrict the term *psychosomatic* to diseases in which psychological events appear to contribute heavily to etiology and to such diseases as peptic ulcer and ulcerative colitis, in which manipulation of psychological factors seems markedly to influence the course of the illness.

There are several reasons for the lack of agreement in psychosomatic theory. 1. One of these is conceptual confusion. Such confusion may understandably follow when an attempt is made to describe in one theory, phenomena which have previously been studied by entirely separate and distinct sciences, namely psychopathology and medical pathology as well as psychology and physiology. The psychological and the physiological disciplines operate at different levels of description, use different systems of semantics and symbols, and are at different stages of theoretical development. They use essentially different methods of inquiry. Many of the early as well as some of the current difficulties in theoretical formulations in the field of psychosomatic medicine may be attributed to the inappropriate and uncritical equating of concepts derived from different levels of description(2). Compounding these difficulties is the uncritical application of unproved psychiatric and, in particular, psychoanalytic concepts to psychosomatic theory. Among such controversial concepts are "libido" and a fixed pattern of psychosexual development(3). Although such psychoanalytic concepts have been of immense theoretical and practical value in working therapeutically with psychiatric patients, their undiscriminating transfer to psychosomatic medicine, is, we feel, questionable.

2. Another reason for lack of agreement is the underdeveloped state of psychology, psychiatry, and psychoanalysis. These sciences suffer from deficiencies in language and methods of description, frequent conceptual confusion, and a lack of experimental and clinical validation of many of their theoretical and therapeutic principles. We believe that at this point the greatest single obstacle to the development of a satisfactory psychosomatic theory and the definitive demonstration of a significant relation-

[1] Read before the 5th annual meeting of the Academy of Psychosomatic Medicine, N. Y. C., Oct. 11, 1958.

[2] From the Department of Psychiatry, New York Medical College, New York, N. Y. Address: 110 East 87th St., New York 28, N. Y.

ship between psyche and soma is the relatively backward state of the psychological sciences. We feel that there must be progress in psychological theory and technique to bring these disciplines to a level of development *comparable* to that of the physical and biological sciences in order that psychosomatic phenomena may be described in comparable terms.

3. Finally, the idea must be entertained that one "unified theory" of psychosomatic disease, which has been sought by almost all investigators in this field, may never be possible, *i.e.*, that different psychosomatic diseases may prove to be psychosomatic by virtue of entirely different mechanisms, so that different workers studying different diseases may very correctly emerge with distinctly different and yet valid psychosomatic theories.

THE MAJOR THEORETICAL APPROACHES

We will now try to describe the salient features of the current theoretical psychosomatic approches. For the sake of brevity, we arbitrarily divide the theories into 3 groups. The first group may be termed "specificity" theories, according to which, specific psychological events cause specific psychosomatic diseases. Another group, the so-called "nonspecific" group, attributes psychosomatic disease to general psychogenic stress reactions, which may be triggered off by a variety of psychological stimuli. The third group has developed out of the recognition of the limitations of the other two.

The *specificity* theories vary in their explanation of the mechanisms by which psychosomatic diseases are produced. Included in this group are the historically important but no longer accepted "personality profiles" of Flanders Dunbar(4), in which she suggested that various personality constellations are etiologically associated with specific diseases—for example, that coronary occlusion is associated with the driving, ambitious male.

Another "specific" approach derives from Freud's libido theory(5) as applied to the etiology of conversion hysteria. Freud suggested that various hysterical somatic affections, such as paralysis, might be caused by specific unconscious psychological conflicts that were defensively transformed into *symbolically significant* functional somatic symptoms involving organs innervated by the voluntary nervous system. Freud, incidentally, never applied his hysteria formulation clearly to visceral diseases, although other workers have. For example, Garma(6) has now suggested a libido theory formulation with some Kleinian modifications in his hypothesis about the causation of peptic ulcer, in which ulcer is explained as the result of the symbolic bite of the patient's gastric mucosa by his introjected hostile mother.

Most of these aforementioned "specific" approaches, which clearly suffer from the uncritical application of inappropriate psychological concepts, have been displaced in acceptance and popularity by Alexander's much more sophisticated but still controversial specificity theory(1), which has its conceptual roots in the amalgamation of the best of Freud's, Cushing's and Cannon's work(7, 8). Alexander suggests that specific typical unconscious conflict situations result in specific diseases by virtue of the following mechanism, presented in a very simplified form. He believes that a specific conflict situation will arouse anxiety in a particular patient. The anxiety, which in psychoanalytic theory is regarded as a signal of danger to the patient's ego, then sets in motion a series of specific unconscious psychological reactions which involve characteristic psychological defenses and regressive phenomena. Alexander believes that specific emotional reactions have specific parasympathetic and/or sympathetic concomitants, which affect specific visceral organs. The excessive autonomic-organ innervation caused by the chronic tension of *repressed* conflicts may lead to disturbance in function, which may eventually lead to organic pathological changes in susceptible individuals.

Thus, for example, blocking of dependency needs in adult life in a patient with a passive-dependent character structure causes anxiety, with a resultant specific defensive regression to an infantile oral state. The discharge of "psychic energy" through the parasympathetic nervous system is associated with increased gastric acid secretion. If chronically aroused, this

concomitant vegetative pattern may lead to peptic ulcer in susceptible individuals.

Alexander's studies have been criticized on theoretical as well as experimental grounds. First, theoretically Alexander discounts the role of the voluntary nervous system in the genesis of psychosomatic disease; second, he has assumed as fact certain hypothetical and questionable psychoanalytic concepts and has proposed a series of fixed unconscious conflictual constellations as causative factors in various diseases; third, he assumes that certain psychological conflicts or stresses have specific physiological concomitants. This latter point has been experimentally challenged and represents an example of the conceptual confusion resulting from mixing concepts from two levels of description.

Although there is some validation of Alexander's studies, there has been considerable disagreement on whether it is possible to demonstrate the same specific conflicts in all cases of the same disease. It is also questionable whether the conflicts postulated for one disease differ from those associated with others. In other words, it has not been possible up to this time to predict disease from conflict, or vice-versa. In addition, it is highly doubtful whether specific psychological conflicts can be correlated clinically or experimentally with specific physiological vegetative changes.

Alexander's views have received significant support from several hundred case histories reported in the literature as well as from the fine and continuing experimental studies of Mirsky(9). The latter investigator has demonstrated that gastric secretory activity is paralleled by the excretion of uropepsin in the urine and has therefore been able to correlate stomach activity with a variety of psychological stimuli which have been interpreted psychoanalytically. He concluded from his studies that there was a positive relationship between augmentation of uropepsin excretion, and hence gastric activity, and the mobilization of oral dependency wishes in various subjects. If true, this finding would support Alexander's theoretical views particularly in reference to peptic ulcer pathogenesis. However, it is important to note that there are many dissenting opinions about the interpretation of the psychological data presented by many of the aforementioned supporting investigators.

Thus, even though Alexander's theory of the typical unconscious conflict remains a major theoretical force in the psychosomatic field, it is at this time a basically unvalidated hypothesis resting on unvalidated underlying assumptions.

The *nonspecific* theoretical approaches to psychosomatic medicine include the theories of Wolff, Mahl, Selye and various animal experimentalists such as Liddell and Gantt. Their approach rests on the assumption that there is no correlation between the type of psychological stress and the nature of the organ selected for the disease.

In general, the work of this group is not rooted in psychoanalytic theory. Therefore, although the resultant formulations may suffer from a limited insight into some psychological complexities, they gain the advantage of being unhampered by unvalidated and often misleading assumptions.

Among the outstanding experimentalists of the so-called nonspecific group are Harold Wolff(10) and his associates at the Cornell Medical College. Wolff's main contribution to the field of psychosomatic medicine is the application of the experimental method to the study of the physiological and pathological functioning of various bodily organs and the correlation of these functions with various types of psychological stimuli. Using laboratory and clinical experimental techniques, he has amply demonstrated physiological and pathological changes in various organs and systems—notably the stomach(11), the colon(12), and the nasal mucosa(13) under emotional stress as well as during ordinary life situations. The changes he describes generally involve variations in the swelling, vascularity, and motility of various viscera, and it is assumed that these changes are the logical precursors of potentially permanent pathological changes which constitute psychosomatic disease. He describes, for example, two variations of physiological change in the gastrointestinal and respiratory mucosa, namely, hyperfunction and hypofunction in the vascular and secretory activity. In general, emo-

tions such as hostility are associated with physiological overactivity, while fear and sadness involving a feeling of withdrawal are accompanied by diminished physiological function. The character of the conflict evoking these emotions, although not specific for any particular illness, is specific for the individual patient and has its roots in the events of his sociopsychological development.

More recently, Wolff has concluded that psychosomatic disease is a result of attempts of the total organism to protect itself against psychogenic stress in the form of threatening symbols or situations. In interpreting his data, Wolff suggests that many of the physiological changes described above, although originally unconditioned protective reaction patterns and responses to noxious physical stimuli, may later become conditioned to noxious psychological stimuli. He further suggests that the resultant physiological reactions ultimately also acquire symbolic psychological meanings; for example nasal hyperemia associated with nasal obstruction represents a "shutting out–shutting in pattern" of nonparticipation in stressful life situations.

Wolff has been criticized as naive in his selection and interpretation of psychological data. Margolin(14), typifying the psychoanalytic approach, feels that Wolff has failed to take account of important "unconscious" psychological data and has dealt with the behavioral aspect of his correlations on too superficial a level. We, on the other hand, tend to agree with most of Wolff's work, which we believe includes some very important basic contributions to the field, but we differ with his recent conclusion that psychosomatic disease is protective, defensive, and symbolic in nature. We shall clarify this point when we present our own theoretical approach.

Other workers in this nonspecific group have demonstrated various possible mechanisms by which psychologically induced stress may cause organic disease in man and animals. Selye(15) feels that the hypophyseal-adrenocortical axis responds to various types of physical and psychic stress with hormonal changes which can ultimately cause a variety of organic diseases, such as rheumatoid arthritis and peptic ulcer. Selye views such diseases as a side product of the body's attempt to adapt to stress from any source.

Mahl(16), an experimental psychologist with a learning theory conception of behavior, has studied the effects of chronic unrelieved anxiety in men and animals and has found that gastric hydrochloric acid production increases under such circumstances. Since such acidity is a precursor of peptic ulcer, he had concluded that chronic anxiety, derived from any source whatsoever, is the variable intervening between the behavioral and physical events involved in psychosomatic illness.

Other animal experimentalists, such as Gantt(17) and Liddell (18), have successfully produced a variety of psychosomatic symptoms, *e.g.*, certain respiratory conditions, in animals, by experimentally creating stressful situations and inducing conflicts. Since it can be assumed that animals do not have man's capacity for symbolic thought, and since they nevertheless demonstrate psychosomatic phenomena in response to psychogenic stress, one wonders whether it is necessary or practicable to postulate the operation of specific psychological conflicts, which can hardly be meaningful to an animal, in the etiology of such disease.

Our own theoretical predilection lies along nonspecific lines(2). We believe that as long as a patient can deal with unpleasant emotions and with the anxiety engendered by his conflicts by means of various psychological defenses and mechanisms, there will be no abnormal psychogenic physical functioning nor resultant psychosomatic illness. If, however, a patient's psychological defenses are inadequate to reduce his excited or anxious state, so that he is left in a chronic state of emotional tension, then a variety of psychosomatic diseases may be produced in constitutionally susceptible individuals as a result of the physiological concomitants of chronic tension. According to this view, many psychosomatic diseases are a consequence of the *breakdown* of psychological defenses. It should be added that we do not consider the aforementioned mechanism to account for all instances of psychosomatic illness; other mechanisms, such as conditioning,

may play a role in certain diseases. Nor do we believe that there is sufficient evidence to indicate that the nature of the psychological stimulus setting off the emotional tension determines the type of disease that develops. The problem of "organ selection," *i.e.*, what accounts for the type of disease suffered by a particular patient, is unsolved as yet. Interesting work by Malmo(19) suggests that constitutional factors may be the prime determinants of organ selection in psychosomatic disease.

A criticism that has been justly leveled against the nonspecific theorists is that their approach is too general : they say, in effect, that a person is nervous and that this makes him sick. The object, however, is to use modern psychodynamic and psychopathological concepts in order to define more precisely what the etiological factors in psychosomatic disease are. Alexander, in criticizing Mahl's use of the concept of chronic anxiety as a causative agent in psychosomatic disease, notes that he too recognizes the importance of anxiety, but, whereas Mahl believes that the physiological concomitants of anxiety cause psychosomatic disease, Alexander believes that it is anxiety which triggers off a series of psychodynamic processes which terminate in psychosomatic illness. The controversy seemingly is a semantic one, hinging on the meaning of anxiety. It goes deeper, however. The psychoanalysts generally feel secure in their complex conceptualization of the psyche and try to correlate physical events with specific but highly theoretical psychological events. The other group of theorists, on the other hand, believe that psychological knowledge has developed to a point where only the most general correlations are possible.

Many workers recognize the limitations in the current state of knowledge and theory of psychosomatic medicine and have suggested that a multidisciplinary approach might facilitate progress in this field. Among these are Galdston(20) who believes that psychoanalysts tend to concentrate excessively on the psychological aspects of the problem. Grinker(21) and his co-workers have suggested a "field theory" in which they advocate that in psychosomatic medicine one must appraise all factors, external and internal, past and present, that bring their influence to bear upon the patient and represent a disturbance of his homeostatic equilibrium. Grinker would have investigators of different disciplines, *e.g.*, sociology, physiology, psychology, *etc.*, study the same disease at the same time using their own frame of reference. Grinker contends that "most psychiatrists, psychologists or social scientists are too deeply specialized and immersed in their own disciplines to be able to observe accurately the relationships or bridges to other disciplines involved in studying co-variables. Each should indicate when and where his observations lose their sharpness and when other specialists at different positions in the total field are necessary"(21).

Summary

We have outlined, for the sake of simplicity, 3 groups of psychosomatic theorists. One assumes that the psychological make-up of the individual and the character of the psychological trauma determine the nature of organic illness. Another group believes that the structure of the patient's personality and the nature of his conflicts and psychological trauma have no direct bearing on the type of organic pathology he will develop. They assume that any kind of psychological stress may be associated with a pathogenic physiological concomitant leading to organic disease, the nature of which depends probably more on the physical than on the psychological make-up of the individual. The third group is not really worthy as yet of being characterized as a theoretical group. It consists of those who object to the lack of validation of the intellectually attractive specificity theories and yet are dissatisfied with the overgeneralized nonspecific theories. These theorists are using the "shotgun," or multidisciplinary, approach in an attempt to clarify the complex problems of phychosomatic medicine.

You may well ask, where does this leave me? That, we suggest, depends on your aims and the level of your interest. For example, it is important for the nonpsychiatric medical practitioner to be aware of the existence of the psychosomatic relationship and of the the fact that different opinions

about etiology exist. Each patient should be treated as an individual, and no formula or set treatment regimen can as yet be applied to any particular problem. When treating an ulcer patient, it would in our opinion, be unwise to assume that he is therefore dependent and has problems in this area ; what is important is to attempt to diminish his anxiety level in any way that will work uniquely for him.

The same general attitude ought to be taken by the psychiatrist. He will probably have a tendency to espouse a psychosomatic theory consistent with his particular psychiatric orientation ; this is constructive so long as it gives him a useful frame of reference in working with patients. He should, however, be sufficiently flexible to be aware that he is dealing with theoretical constructs, not with proved facts. He should also be aware that his interpretations and psychotherapeutic manipulations may have profound physical effects on his psychosomatic patients and may seriously affect the course of the organic phase of the disease process.

And lastly we come to the "egghead," the "theoretical psychosomaticist." He should not be at all discouraged by the disagreements and the contradictions ; to the contrary, he should thrive on them. There is a great joy in working on untrodden soil, especially when that soil is of as much intrinsic interest and importance as psychosomatic medicine. We are faced with a myriad of unknown phenomena and imperfectly understood relationships. As each theory is proposed, it should be scrutinized under the harsh and impartial light of the scientific method, which demands rigorous proof and validation.

We find it stimulating to work amidst such mystery, and rather than finding the lack of conclusiveness distressing, consider it one of the personal attractions offered by the field of psychosomatic medicine.

BIBLIOGRAPHY

1. Alexander, F. : Psychosomatic Medicine. New York : W. W. Norton and Co., 1950.

2. Kaplan, H. I. and Kaplan, H. S. : Am. J. Psychother., **9** : 16, 1957.

3. Mendelson, M., Hirsch, S., and Webber, C. S. : Psychosom. Med., **18** : 363, 1956.

4. Dunbar, F. : Emotions and Bodily Changes. New York : Columbia University Press, 1954.

5. Freud, S. : Fragment of an analysis of a case of hysteria. In Collected Papers, Vol. III. London : Hogarth Press and the Institute of Psychoanalysis, 1948.

6. Garma, A. : Internat. J. Psychoanal., **31** : 53, 1950.

7. Cushing, H. : Surgery, Gynecology and Obstet., **55** : 39, 1932.

8. Cannon, W. B. : The Wisdom of the Body. New York : W. W. Norton and Co., 1932.

9. Mirsky, I. A. : Psychoanalysis and the biological sciences. *In* Twenty Years of Psychoanalysis. Ed. by F. Alexander and H. Ross. New York : W. W. Norton and Company, 1953.

10. Wolff, H. G. : Assn. Res. Ner. Ment. Dis., **29** : 1059, 1950.

11. Wolf, S. and Wolff, H. G. : Human Gastric Function. New York : Oxford University Press, 1943.

12. Grace, W., Wolf, S. and Wolff, H. G. : The Human Colon. An Experimental Study Based on Direct Observation of Four Fistulous Subjects. New York : Harper and Bros., 1951.

13. Holmes, T. H., Goodell, H., Wolf, S. and Wolff, H. G. : The Nose : An Experimental Study of Reactions Within the Nose in Human Subjects During Varying Life Experiences. Springfield, Illinois, C. C. Thomas, Publisher, 1950.

14. Margolin, S. G. : Psychoanal. Quart., **20** : 349, 1951.

15. Selye, H. : The Physiology and Pathology of Exposure to Stress, Montreal : Acta, 1950.

16. Mahl, G. F. : Psychosom. Med., **12** : 158, 1950.

17. Gantt, W. H. : Experimental Basis for Neurotic Behavior : Origin and Development of Artifically Produced Disturbances of Behavior in Dogs. New York : Paul Hoeber, 1944.

18. Liddell, H. : The role of vigilance in the development of animal neuroses. In Anxiety. Edited by P. Hoch and J. Zubin. New York : Grune and Stratton, 1950.

19. Malmo, R., Shagass, C. and Davis, F. H. : Res. Pub. Ass. Nerv. Ment. Dis., **29** : 231, 1950.

20. Galdston, I. : Arch. Neurol. and Psychiat., **74** : 441, 1955.

21. Grinker, R. : Psychosomatic Research. New York : W. W. Norton and Co., 1953.

DEVELOPMENTAL AND SEXUAL FACTORS IN WOMEN: A COMPARISON BETWEEN CONTROL, NEUROTIC AND PSYCHOTIC GROUPS [1]

GEORGE WINOKUR, M.D., SAMUEL B. GUZE, M.D. AND ERIC PFEIFFER, A.B.[2]

As part of a larger study on the occurrence of nocturnal orgasms in female psychiatric patients and controls, some observations were made on a number of symptoms which are frequently thought to indicate psychiatric disorder. Data were gathered on the history of such phenomena as sleep walking, enuresis, dyspareunia, frequency of orgasm and dysmenorrhea, and the groups were compared on the basis of these data. From the comparisons it is possible to discern more clearly than before the prognostic significance of developmental factors such as enuresis and somnambulism and to determine the significance of sexual factors in psychiatric illness.

SUBJECTS AND METHODS

A structured interview was held with 100 female non-psychiatric patients from medical and surgical clinics. In order to control for psychiatric patients in this group, a subject who gave a history of having had any psychiatric therapy or of having taken "nerve medicine" was discarded from the study. From psychiatric clinics, 50 females with the diagnosis of a neurosis and 50 females with the diagnosis of a psychosis were obtained and were subjected to the same structured interview. All interviews were performed by the same person. All subjects were white and all neurotics and controls were seen either in the Washington University Clinics or the clinics of the St. Louis City Hospital, thus controlling for socio-economic status. Most of the psychotics were seen in the clinics but a few were interviewed during their stay as ward care patients in the Renard Hospital or the St. Louis City Hospital. The mean ages for each group were as follows: psychotics 42.8, neurotics 42.0 and controls 38.9 years. The diagnoses of the psychotics were schizophrenia 64%, psychotic depression 12%, involutional depression 12%, manic-depressive depressed 4%, manic-depressive manic 4% and paranoid state 4%. The diagnoses of the neurotics were obsessive compulsive 2%, anxiety reaction 42%, hysteria 24%, reactive depression 20%, hypochondriasis 4%, phobic reaction 2%, mixed psychoneurosis 4%, and immature personality 2%. The controls had a variety of medical and surgical disorders.

As psychiatric illness largely manifests itself in disturbed interpersonal relationships, it is of note that not only were the groups differentiated on the basis of a psychiatric diagnosis but also in terms of the marital data (Table 1).

TABLE 1

MARRIAGE DATA (AT TIME OF INTERVIEW)

	No. of Subjects	Married	Separated or Divorced	Widowed	Single
Control	100	73%	17%	9%	1%
Neurotic	50	48%	28%	18%	6%
Psychotic	50	56%	30%	8%	6%

Chi square analyses indicate that between the control and neurotic groups and between the control and psychotic groups the differences in being married at the time of the interview are reliable beyond the .01 and .05 levels of confidence respectively.

RESULTS

The results will mainly be presented in the form of tables which are self explanatory.

Dreams: In an inquiry as to whether the subjects dreamed frequently, occasionally or never, it was found that whereas 38% of the neurotics dreamed frequently as opposed to 24% of the psychotics and 25% of the controls, this was not a significant differentiating factor. The differences in the groups between the occasional dreamers and those who never dreamed were even smaller.

[1] Read at the 114th annual meeting of the American Psychiatric Association, San Francisco, Calif., May 12-16, 1958.

[2] From the Department of Psychiatry and Neurology, Washington University School of Medicine, St. Louis 10, Mo.

Enuresis: This developmental factor was defined as having wet the bed outside of pregnancy after the age of five. An effort was made to determine when the enuresis had stopped in each patient answering in the affirmative. Table 2 shows the results.

TABLE 2

(ENURESIS)

	No. of Subjects	Enuresis at Present	History of Enuresis	Mean Age of Cessation
Control	100	1%	15%	(n=15) 10.8
Neurotic	50	0%	18%	(n= 9) 11.1
Psychotic	50	2%	14%	(n= 6) 9.7

Somnambulism: This symptom was defined as ever having walked in sleep.

TABLE 3

(SOMNAMBULISM)

	No. of Subjects	Somnambulism at Present	History of Somnambulism
Control	100	3%	20%
Neurotic	50	4%	26%
Psychotic	50	0%	6%

Chi square analyses using the Yates correction for continuity were performed for the 3 groups on the presence of somnambulism in the history. Psychotic-neurotic, $P<.02$; psychotic-control, $P<.05$.

Menopausal Symptoms: In those women who had attained the age of menopause an effort was made to determine whether they had had any symptoms referable to the menopause. Mainly, the symptoms were nervousness and hot flashes.

TABLE 4

(MENOPAUSAL SYMPTOMS)

	No. Post-menopausal	Post menopausal Without Symptoms	
Control	35	18	51%
Neurotic	27	17	63%
Psychotic	23	12	52%

Chi square analyses revealed no reliable differences between any of the groups.

Miscarriages and Pregnancies:

TABLE 5

(MISCARRIAGES)

	No. of Subjects	Pregnancies/Pt.	Miscarriages/ Pregnancies
Control	100	4.06	.150
Neurotic	50	3.42	.222
Psychotic	50	3.02	.211

Chi square analyses as regards the presence of a miscarriage in a pregnancy reveal the following: neurotics vs. controls $P<.05$; psychotics vs. controls $.10>P>.05$.

Dysmenorrhea and Dyspareunia: The frequency with which the complaint of having or having had pain with menstruation occurred is seen in Table 6. The members of each group were also compared as to whether they had had pain on intercourse.

TABLE 6

(DYSMENORRHEA AND DYSPAREUNIA)

	No. of Subjects	% with Dysmenorrhea	% with Dyspareunia
Control	100	50%	15%
Neurotic	50	64%	20%
Psychotic	50	50%	18%

No reliable differences were noted.

Frequency of Orgasm: An inquiry was made as to whether the subjects had orgasm and how frequently. The groups were compared as regards the number in each group who experienced orgasm about 25%, 50%, 75% and 100% of the times they had intercourse.

There are no reliable differences between groups.

Frequency of Intercourse: The individuals of each group had the same frequency of intercourse except for the percentages reporting such experiences less than once a week. Twenty percent of neurotics, 15% of controls and 38% of psychotics said such was the case. Chi square analyses comparing the psychotics against the controls and neurotics on the subject of this variable of infrequent intercourse reveal significances beyond the .01 and .05 level respectively. That this was not only due to the decreased marriage state of the psychotics is seen by the fact that the number of people in the neurotic group married at the time of the interview was even less than that of the psychotic group.

Enjoyment of Coitus and Satisfactory Sexual Life: All subjects were asked whether they enjoyed coitus as much as their partner and whether they felt their sexual life was satisfactory. The former was clearly the more specific question. The results will be seen in Table 9. The percentages refer to affirmative answers.

No reliable differences were seen as regards the enjoyment of coitus. Chi square

TABLE 7

(FREQUENCY OF ORGASM)

	No. of Subjects	25%	50%	less than half	75%	100%	More than half
Control	100	27%	29%	56%	19%	25%	44%
Neurotic	50	40%	16%	56%	6%	38%	44%
Psychotic	50	30%	20%	50%	10%	40%	50%

TABLE 8

	No. of Subjects	Enjoy coitus as much as partner	Sexual life satisfactory
Controls	100	63%	77%
Neurotics	50	54%	46%
Psychotics	50	62%	58%

analyses reveal that in comparing the controls with the psychotics and neurotics on the subject of whether the sexual life was satisfactory, P values of less than .05 and .01 were found respectively.

DISCUSSION

These data are interesting primarily because of their significance as regards prognosis, clinical picture, and the nature of psychiatric illness. It would be difficult to interpret such findings as the increased incidence of miscarriages in neurotics and psychotics and the decreased incidence of somnambulism in psychotics without replication and further investigation. The reliable differences in the reporting of a satisfactory sexual life between controls and psychiatric patients is open to conjecture as it was the impression of the investigators that an affirmative answer could mean one or all of three things, *i.e.*, that the person was sexually satisfied, that the marriage was satisfactory or that the subject had had enough in the way of sexual relations and wanted no more. The remainder of the data, however, lends itself to clearer interpretation.

Developmental factors such as somnambulism and particularly enuresis have long captured the imagination of the psychiatrist. A popular psychiatric text(1) indicates concern over the fact that bedwetting may be suppressed by various measures without any attempt to deal with the problem psychotherapeutically, and cautions that such cures have not improved the underlying psychopathology but have only driven the symptom underground. It is asserted that enuretic children have emotional problems and only rarely is enuresis due to lack of training. If such statements were true one would expect to find a higher incidence of enuresis in psychiatric patients than in controls, particularly as the symptom of enuresis is such a common one. The present study indicates as do two others (2, 3) that such is not the case. Although no attempt was made to define severity of enuresis in terms of frequency, the profiles of the groups were quite similar as regards the age of cessation of the symptom. The conclusion which can be drawn from our data is that neither enuresis or somnambulism predisposes to psychiatric difficulties.

It has been said by some psychiatrists that the failure to solve the oedipus complex is the factor on which future neurosis and psychosis depends(4). It is suggested that oedipal conflicts manifest themselves in disturbed adult sexuality. Some doubt is thrown on the validity of this formulation by the results of the present study. There is no reason to believe that groups of neurotics and psychotics are at all to be distinguished from controls by the variables usually considered to indicate sexual adjustment. The only exception to this is in the case of hysteria where previous work indicates that sexual maladjustment is nearly always present(5). Measures such as frequency of orgasm, dyspareunia and the enjoyment of coitus were so nearly alike for all groups that they certainly raise serious question as to whether they have any value at all in the recognition of psychiatric disorders in themselves. It appears that the best evidence of a psychiatric illness is the presence of a set of specific psychiatric symptoms which are elicited in the usual clinical manner rather than a group of inferences based upon theoretical formulations of etiology and pathogenesis

which lead to inappropriate emphasis upon nondiscriminatory phenomena.

Summary

Comparison of groups of controls, neurotics, and psychotics were made by means of a structured interview. Developmental symptoms (enuresis and somnambulism) were not noted to be harbingers of psychiatric disease. Menopausal symptoms, dysmenorrhea, dyspareunia, frequency of orgasms and enjoyment of coitus did not differentiate the groups. A higher incidence of miscarriages was noted in psychotic patients and a lower incidence of somnambulism was seen in the psychoses. A significantly higher percent of psychotics had intercourse infrequently, although in other sexual areas as noted above the psychotic group was like the others.

BIBLIOGRAPHY

1. English, O. S. and Finch, S. M. : Introduction to Psychiatry. New York : W. W. Norton & Co., 1957.
2. Brockway, A. L., Gleser, G., Winokur, G. and Ulett, G. : Am. J. Psychiat., **3** : 248, Oct. 1954.
3. Tapia, F., Werboff, J. and Winokur, G. : J. Nerv. and Ment. Dis., **127** : 119, 1958.
4. Ewalt, J. R., Strecker, E. A. and Ebaugh, F. G. : Practical Clinical Psychiatry. New York : McGraw-Hill Book Co., 1957.
5. Purtell, J. J., Robins, E., and Cohen, M. E. : J.A.M.A., **146** : 902, 1951.

ON THE DYNAMICS OF THE MANIC-DEPRESSIVE PERSONALITY [1]

ROBERT W. GIBSON, M.D.,[2] MABEL B. COHEN, M.D.,[3]
AND ROBERT A. COHEN, M.D.[4]

The primary goal of psychoanalytic therapy is the relief of the patient's symptoms and the promotion of further growth of his personality. However, data elicited in these intensive relationships have served a most important additional function; they have formed the basis for a theory of personality development and of human relations which may aid man in the greater realization of his potentialities. The problem of generalizing from these data is complex. To what extent are the patterns of thought and behavior described in our patients characteristic of all other patients with the same clinical symptoms? To what extent are they similar to those of normal individuals in our own and other cultures? How do they compare to patients with other severe emotional disorders? An important criticism leveled at psychoanalytic data is that the sample is skewed. For example, a recent study(1) of the patients treated by psychoanalysts in the United States indicates that 60% are college graduates, as compared to 6% in the general population. They tend to be predominantly middle class and upwardly mobile. Adequate studies with lower class patients have not yet been reported. There are a host of other problems which remain to be resolved before our theories can be validated.

In this report we have attempted to make a contribution to some of these issues at several levels. Treatment of the schizophrenic patient, studies of his interactions with others, and of his family relationships have been the objects of considerable psychoanalytic attention. This has led not only to the formulation of important principles in therapeutic technique, but also to an increased understanding of personality structure and dynamics—particularly of the vicissitudes of ego development. By reexamining the course of intensive psychotherapy of a group of manic-depressive patients, we hoped to delineate the special problems of therapeutic technique posed by these individuals. Coincident with this we tried to define some characteristic personality qualities, especially those which seem to be quite different from those of schizophrenic patients with whom we had worked similarly. By studying the development of the transference-countertransference relationships and by considering such events of their early life experiences as they seemed to have in common, we postulated some tentative ideas as to the possible relationships between intrapersonal forces and early familial and other environmental experiences which might account for the type of personality development we had observed. Finally, having defined those qualities which our group of intensively treated patients appeared to have in common, one of us who had not participated in the original study examined a series of case histories of manic-depressive patients from a large state mental hospital to determine which of the original observations seemed to apply also to this different population.

In this paper we shall briefly summarize the findings of the two studies and then discuss some of their therapeutic and theoretical implications. And finally, we raise some of the questions which must be answered through further research.

The first study(2) was done on a group of 12 cases of manic-depressive psychosis who were, or had been in intensive psychoanalytic psychotherapy for periods ranging from 1 to 5 years. Nine of these cases were reviewed in a research seminar which met twice monthly for a period of 3 years. Subsequently, these reports were restudied for 2 more years, together with material from 3 other patients currently in treatment.

THE MANIC-DEPRESSIVE PERSONALITY

In brief summary, the personality pat-

[1] Read at the 114th annual meeting of The American Psychiatric Association, San Francisco, Calif., May 12-16, 1958.

[2] Chestnut Lodge, Rockville, Md.

[3] Editor of *Psychiatry*, Washington, D. C.

[4] Director, Clinical Investigations, National Institute of Mental Health, Bethesda 14, Md.

terns of the manic-depressive patient which impressed the seminar group as being most conspicuously related to difficulties in adjustment and ultimately to the development of the psychosis were :

1. The patients' dependency drives ; 2. The extreme difficulty in dealing with feelings of envy and competition ; 3. The common use of denial as a defense, there being a notable lack of subtlety, and of awareness of their own or of the feelings of others in their interpersonal relations ; and 4. The almost total orientation of values in terms of social convention and of what others think.

Our findings supported those of Freud(3, 4), Abraham(5), and others that a frequent precipitating event in the psychosis is the loss of a love object. On studying the nature of the patient's relationship with the object, it was found to be an intensely dependent one. The patient had sacrificed his own maturity and self-sufficiency ; his gratification and security seemed to rest on his success in gaining the approval of the object by gratifying the other's needs and desires. Coupled with this dependency was an extreme degree of envy and competitiveness not only toward potential rivals but also toward the highly-valued object. The experience of envy directed toward others was associated with a fear of being envied or of being in an enviable position, with the result that achievement of dependent strivings was invariably associated with feelings of vulnerability and danger.

This complex of dependency drives and envious fear of others was almost totally out of awareness. In many patients it was covered by a superficial, apparently affable relationship with a large circle of acquaintances ; in others it was expressed in an over-conscientious, martyr-like integration with the important person. In the service of the successful maintenance of this dependency, the patient's value system was oriented toward gaining the approval of others, and toward fitting in with the conventional standards of his group. There appeared to be an absence of, or a lack of conscious appreciation for, empathy and psychological feeling. The patient seemed to avoid awareness of the meaning and significance of his experiences with others, both in terms of his own feelings and the manifest expressions of the attitudes of his associates. Nevertheless, although they were not consciously aware of their envy, competitiveness, and dependent strivings, on a behavioral level they seemed to take such factors into account, and so manipulated the important figures in the environment that they were often temporarily successful in achieving gratification.

For example, such a patient might attempt to mobilize another into helpful action by means of an indirect request. The problem is laid before the other in such a manner that not offering to step up and perform the desired action seems at the least ungracious and at the most downright harmful to the patient. Thus one patient while on an out-of-town assignment desired to change jobs and believed that his analyst could use influence to bring about the hoped-for change. He wrote a letter outlining the prospects but without making any request for assistance. A non-committal reply by the analyst was promptly followed by a renewal of depressive symptoms. Subsequent discussion of the sequence brought recognition to the patient of his covert expectation that the analyst would make the new job possible, his feelings of anxiety and rejection when this was not done, and the subsequent depression. Supporting the impression of the causal relationships in this sequence was the lifting of the depression after it was reviewed.

EARLY PARENT-CHILD RELATIONSHIPS

A comparison of the inner experiences, as reported in psychotherapy, of the manic-depressive patient with those of the schizophrenic during periods of intense anxiety led us to hypothesize that the manic-depressive's early anxiety experiences with the mother interfered with his succeeding in very young childhood in integrating his concepts of the good mother and bad mother into a single person. This kept him dependent and suppliant to an ambivalently-viewed object who would be good and rewarding to the extent that the child conformed, but tyrannical and condemning whenever he acted independently. This was in contrast to the schizophrenic who failed to develop a self clearly differentiated from

the other. While both relationships can be considered dependent, the quality of the dependency is different. The schizophrenic ego is relatively weaker, his concept of self more tenuous. In moments of panic his ego boundaries appear to dissolve; he has the greatest difficulty in distinguishing between himself and objects, and desperately struggles to maintain his own identity by such mechanisms as withdrawal or projection. The manic-depressive, on the other hand, has a sturdier ego, and distinguishes more clearly between himself and his objects. However, he is equally dependent, and attempts to manipulate the object in order to find acceptance by it and to acquire, if possible, exclusive possession of it.

THE PSYCHOTIC ATTACK

The prepsychotic person with a manic-depressive personality can be thought of as living in an equilibrium in which there is enough gratification of his dependency needs to minimize his anxiety, his fear of abandonment, and his competitive envy of others. This equilibrium can be threatened by a variety of life situations: the object may be factually lost by death; there may be a change in relationship merely by change in circumstance; the object may rebel at the dependency relationship and refuse to continue his role; some circumstance of success on the part of the patient may alter his relationship with the object and arouse his fears of being envied; or some outstanding success of the other's may also threaten the dependency and arouse the patient's envy.

When the depression comes on, it seems to be an exaggeration and intensification of the habitual personality patterns. When the dependent equilibrium is disrupted, the patient uses depressive techniques—suffering, self-reproaches, and complaints—in an effort to elicit the desired response. These become offensive to the other, who as a consequence responds even less; the patient redoubles his efforts and receives still less. Finally he loses hope and enters into the psychotic state where the pattern of emptiness and need is repeated over and over in the absence of any gratifying relationship. During the depressed phase, the patient carries on a chronic, largely fantastic acting-out of the pattern of dependency. He addresses his complaints and appeals for help to his previous object, though now chiefly in fantasy, and in addition rather indiscriminately makes his appeal to hospital personnel or others in his immediate environment. The appeal is highly stereotyped, however, and the efforts of relatives, doctors, nurses, *etc.*, bring no comfort. The patient is unable to establish a constructive working relationship with his therapist for 2 main reasons: first, he does not see a realistic goal to strive for, since he is immersed in his repetitious efforts to attain the much-valued dependent relationships; and second, the therapist is not recognized by him as a real person with whom a reliable working relationship can be established. Much time is spent in fruitlessly going over the stereotyped list of fears, self-reproaches, and complaints.

Our experience has been primarily with the depressive attack. Our limited experience with the manic attack leads us to agree with Freud, Lewin(6) and others that manic behavior can be understood as a defense against the basic depressive pattern. It represents the patient's efforts to escape from the unbearable feelings of isolation and emptiness of the depressive state.

THERAPEUTIC TECHNIQUE

In the light of this picture of the dynamics of the manic-depressive and also as the result of their experience in therapy, the research group developed some concepts of techniques of treatment. It was noted that most of the group found psychotherapy with these patients quite difficult. This was partly on the basis of frustration and helplessness in establishing a communicative relationship, and partly due to the irritation and counter-aggression which the patient's demands and denials aroused. Despite these difficulties, however, the group found that therapy showed some promise, and particularly that as they gained experience, the therapists' feelings of helplessness and defeat grew less. The concensus was that the chief therapeutic problem was that of breaking through the barriers to a communicative relationship set up by the patient's conventional stereotypes and denial of emotional meanings in his interactions.

Various methods were advocated for achieving this break-through, many of which were related to the personality of the therapist. Regardless of the specific manner of approach, a general attitude of active involvement with the patient was thought desirable, in contrast to the more passive attitudes appropriate in treating neurotics. However, it was agreed by all that the active involvement must also carry with it an equally active refusal to be manipulated into the position of meeting the patient's dependency needs. Should this occur, the patient will merely be repeating his pre-psychotic pattern with a new object. There is also the danger that the therapist, having drifted into the position of being the source of the patient's dependent gratifications, will eventually free himself from this entanglement by withdrawing from or rejecting the patient. In our experience, the dangers of suicide were greatest when the patient felt unrelated; even a hostile integration with another seemed to lessen this risk. The patient's sense of his own importance or of his meaningfulness as a person may be promoted by the therapist's attempt to convey to him some of the therapist's own feeling attitudes. Even negative responses to his destructive attitudes or his manipulative attempts may be usefully expressed to him if they are genuinely and warmly felt.

EARLY LIFE HISTORY AND FAMILY BACKGROUND

Having developed this working model of the manic-depressive personality, the patients' early life histories were scrutinized for the kinds of experience and types of relationship which might have contributed to the establishment of such patterns. The family histories, as reconstructed during treatment, were examined for elements common to all or most of them. An effort was also made to establish that such elements were unique; that is, that the particular patterns of interaction did not occur in the family history of the schizophrenic or neurotic patient. As will be discussed later, it is highly speculative whether such a characterization can be made. In any event, the most consistent observation made in all 12 histories was that each family was set apart in its social environment by some factor which singled it out as different. This varied from racial to economic difference or to difference resulting from mental illness in a parent. All the families felt this social difference keenly and reacted to it with attempts to maintain or raise the family's prestige by excessive and literal adherence to conventional standards of proper behavior. The patients, as children, were used as instruments for attaining prestige. The child conceived of his worth as being proportional to the degree of his success in being conventionally good. He came to fear that family catastrophe would result from lack of conformity, and that he would be completely rejected and abandoned in such a circumstance. This emphasis on material and conventional success was associated with strong competitive feelings toward others who were seen only as rivals or as objects whose favor was to be sought. The competitive feelings were accompanied by equally strong feelings of envy.

A less consistent observation in the majority of our cases was the finding that the mother was the more driving and ambitious parent, while the father was relatively ineffectual and—even more important—was blamed by the mother for the family's difficulties. In such a situation the child came to depend upon and fear the mother, while finding the father warmer but also less reliable. This led to identity problems as well as to those which arise from inconsistencies in the authority figures.

It was felt that these findings from the group of patients studied by intensive psychotherapy should be checked by the investigation of a larger number of patients and of a control group where the data had been collected in the course of less intensive psychiatric evaluation. We are greatly indebted to Dr. Winfred Overholser and members of his staff for their assistance and cooperation in allowing one of the authors to carry out the second part(7) of the study at St. Elizabeths Hospital in Washington, D. C. The patients in this group differed from the original group in that they were from other social classes, al-

though the social status was not precisely defined for any of them.

A careful study was made of the family relationship patterns and early life experience of 27 manic-depressive and 17 schizophrenic patients. Only those patients were included in whom an unequivocal diagnosis could be made; an additional requirement was the availability of relatives to supplement the information contained in the hospital records. Social workers obtained detailed histories from all informants, special emphasis being given to those aspects of the history related to the hypotheses derived from the first part of the study.

In order to evaluate the information uniformly, a questionnaire was designed in which all the findings of the research group pertaining to family background were stated in the form of 16 questions. By rating the historical data according to this questionnaire, it was possible to determine how closely a patient's history corresponded to the pattern described by the research group. The reliability of the questionnaire was checked by comparing ratings made by several people independently, and by comparing re-ratings made several months later. The reliability studies indicated that the ratings represented adequate, stable judgments, and that the technique of rating could be communicated to uninvolved research assistants.

After all the data had been collected, comparisons were made between the two groups of patients from St. Elizabeths Hospital and the original group of 12 manic-depressive patients. Statistical evaluation indicated that there were only minor differences between the two groups of manic-depressive patients, but there were some highly significant differences between the manic-depressive and schizophrenic patients. In their relations to the community, the families of the manic-depressives had made much greater efforts than the families of the schizophrenics to rise in social status and prestige. They showed greater concern for social approval. The patient was involved in this effort and concerned in a major way. He was often dealt with by his family as if he were an instrument for achieving social prestige rather than a person in his own right. The incidence of envy and competitiveness was particularly high. Most often the patient had been the principal object of this envy and had engaged in self-defeating behavior. The research group had noted this self-defeating behavior and had interpreted it as a defense against the patient's own competitive strivings.

The research group had hypothesized that the parents of manic-depressive patients would show a split, with the mother being relatively cold, unloving but reliable, the father warm, affectionate, and unreliable. No differences in this regard could be found among the families of the 3 groups studied. They had also hypothesized that the manic-depressive would have grown up in a family where there was excessive dissension and great inconsistency with harsh discipline alternating with over-indulgence. In this respect, also, no significant differences were found among the 3 groups of patients.

Thus, the study of the St. Elizabeths' patients supported certain of the concepts of the research group. The manic-depressive can be distinguished from the schizophrenic in that he commonly fits this pattern: he comes from a family where there has been special concern about social approval. The patient has usually borne the brunt of the family's striving for social prestige. There is a background of intense envy and competitiveness. The patient has commonly been the object of this envy within the family, and in later life—presumably to counteract this envy—has developed a pattern of underselling himself and of not utilizing his capacities at anywhere near their potential level.

Discussion and Summary

We have suggested that two sets of factors are important in the development of the manic-depressive personality: 1. The state of ego development when major anxiety-provoking experiences occur; 2. The dynamics of interpersonal relationships between the family members. How much confidence can we place in the findings which led to these hypotheses? In the first place, it should be emphasized that we worked only with patients who actually had a manic-depressive illness, and our descriptions of the "manic-depressive per-

sonality" apply to this group at times when they were free from psychosis. For the most part we worked on the depressive phase of the psychosis, and gave only secondary attention to the manic attack. We do not present any data on the much broader group of cyclothymic personalities.

Is it legitimate to emphasize the social and psychodynamic factors in the development and maintenance of these disorders over and above the biological and hereditary? We do not deny, of course, that the behavioral manifestations of the illness are mediated by physiological alterations. However, it is doubtful that genetic and biological factors could so influence the development of interpersonal relations as to account for the remarkably consistent dynamic descriptions of the personalities of these patients. Further, the fairly consistent family relationship patterns lend support to a primarily psychogenic theory. This view is further strengthened by the fact that with successful psychotherapy the patient abandons his stereotyped pattern of envious, competitive, manipulative dependency and moves into a more mature, independent relationship.

Nevertheless, it is clear that the family pattern as described could not be a sufficient cause for the patient's specific personality development. Not all children in these families developed similar personalities; many of the patterns were also seen in families of schizophrenic patients. Further, it is characteristic of the American middle class generally, especially of upper middle class families, that they have the status consciousness and concern and the upward mobility which we have described for the families of our manic-depressive patients. Obviously, much more research into family patterns is needed, in normals as well as in the various forms of mental disorder, in other cultures as well as in our own, and in the epidemiology of mental illness in the various social classes.

Despite these reservations concerning the reliability of our ideas about them, we believe these family patterns may be influential in the genesis of the manic-depressive personality. Our work to date does not permit us to make a precise statement regarding the mode of action and intermediate steps between the early environmental family influences and the manic-depressive illness. However, inferences drawn from reports of patients in psychotherapy have led us to formulate some tentative hypotheses.

As the child moves from the helplessness of early infancy to the more self-assertive and active phases of late infancy and childhood, he will be increasingly exposed to the anxiety engendered by the family's needs for prestige and social conformity as well as to the conflictful situation arising out of envy and competitiveness. At this time the primary closeness based upon the identifications of early infancy will have diminished but the more mature closeness based on the ability to relate to others as individuals distinct from oneself will be in the most rudimentary stage. Thus the child could be expected to feel peculiarly alone and consequently vulnerable to any threat of abandonment. This particular sensitivity and vulnerability persists into adult life leading to a central conflict in the manic-depressive. It may also be that the repression of feelings and discharge of tensions *via* the manipulative exploitative activity on the part of a parent may provide the child with a model which is later modified in his personality to a hypomanic way of life. In any given case there may be a wide variation dependent upon individual attributes of the infant that serve as stimuli to arouse anxieties in the parents. For example, age, sex, or physical appearance of a child may cause the parent to see the child as a hated sibling, leading to specific kinds of overexpectation and demands. Further, the quality of parent-child interaction may be of specific importance. Thus, the mother-child relationship in schizophrenia has been described as symbiotic; while in the manic-depressive we have visualized it as being less close, with the child serving a somewhat mechanistic role as his mother's instrument. Longitudinal studies of child development will make it possible to check the validity of such hypotheses as these. All that we can offer in their support at present is that such reconstructions in the course of psychotherapy appeared to have been instrumental in

the development of a favorable change in the patient.

Although we have stressed the importance of environmental influences as mediated through the significant interpersonal relationships, we do not deny that differences in drive intensity or innate ego strength may be thought of as determining what makes one person a successful extrovert and another a manic-depressive. Predictive description would have to go far beyond what is presently possible, in the direction primarily of the identification and quantitative appraisal of the resources of the personality. Possibly the character and degree of reaction to psychotomimetic drugs such as LSD-25 and the current studies of the responses to sensory deprivation might contribute to the problem of the assessment of ego strength—both in its defensive and integrative aspects.

Finally, we believe that the methods used in this study have some merit. The seminar made it possible to review the data from a larger number of cases than can usually be reported in psychoanalytic therapy. By virtue of this review we found ourselves steadily narrowing the number of "positive" findings until at last we proposed those which we thought were most consistently present in the 12 patients. These were subjected to further screening by the survey of the larger sample and the schizophrenic controls. This led to a revision of the description of the family relationship patterns and served to highlight those areas requiring more precise definition and investigation. It is to be hoped that further and more sophisticated elaboration of such cross-checking efforts will help organize the great mass of valuable data which lies imbedded in every psychotherapeutic effort.

BIBLIOGRAPHY

1. Weinstock, Harry I. : Summary and Final Report of the Central Fact-Gathering Committee of the Am. Psychoanalytic Assoc.

2. Cohen, M. B., Baker, Grace, Cohen, R. A., Fromm-Reichmann, Frieda, and Weigert, E. V. : Psychiatry, **17** : 103, May 1954.

3. Freud, S. : Mourning and Melancholia. *In* : Collected Papers, **4** : 152.

• 4. Freud, S. : Group Psychology in the Analysis of the Ego. London : Hogarth Press, 1922.

5. Abraham, K. ; Selected Papers on Psychoanalysis. New York : Basic Books, 1953.

6. Lewin, B. : The Psychoanalysis of Elation. New York : W. W. Norton, 1950.

7. Gibson, Robert W. : Psychiatry, **21** : 71, Feb. 1958.

SYMPOSIUM ON SPACE PSYCHIATRY[1]

THE NATURE OF SPACE FLIGHT

ROBERT L. WILLIAMS, M.D.[2]

Historically the beginnings of space psychiatry and its parent, aviation or flight medicine, go back as early as 1783 when the first manned flight of a free balloon was made by the French apothecary de-Rozier. More recently, systematic study of the medical problems of flight began during World War I when it became apparent that failures of the man in the aircraft were more of a problem than failures of the machine.

Extension of these studies to the problems of flight beyond the earth's atmosphere was formalized in 1949 when the Department of Space Medicine was established at the School of Aviation Medicine at Randolph Field, Texas by Major General Harry Armstrong, who was a pioneer in the field of aviation medicine.

The exact beginnings of research in the psychological and psychophysiological problems of flight are difficult to date. However the literature of the past 38 years contains many references to these areas. In recent years laboratories have been set up to study these areas specifically. These labs are to be found in many research centers and include governmental as well as civilian programs.

We are often rather casual in our use of the terms "space flight" and "outer space." We should pause to consider their meanings. Brigadier General M. S. White of the USAF Medical Service recently reviewed our progress at the World Congress of Aviation Medicine. A brief summary of a portion of his presentation will be useful(1).

By use of the 48-inch mirror at the Palomar Observatory it is possible to obtain clear photographs of heavenly bodies as far as a billion light years away. Remember that one light year calculated at 186,000 miles per second equals a distance of 5.8 million, million miles. The Milky Way is the galaxy of which the earth's solar system is a part. The cone nebula can be seen with the more powerful 200-inch Hale telescope, which can double the range of penetration into space to the almost incomprehensible distance of two billion light years. If man could travel at the speed of light, he would not reach this area in the heavens for 20 million centuries. With our present concept of space and time, it is obvious that such a goal is unobtainable. This illustrates how incorrectly we often use the terms of "space" and "space flight."

Looking closer to the earth the nearest star, our sun, is only 8.3 minutes away at the speed of light, or 93,000,000 miles. A trip to Pluto, within our solar system, is 5½ hours away at the speed of light, but 50 years away at our presently possible supersonic speeds.

It has been pointed out that in the future a new theory of relativity with a new orientation to space and time may permit such exploration in our galaxy or to other galaxies. At present and in the near future we will be concentrating on the small area of our universe which may be reached. Man has conquered atmospheric and *space equivalent flight*. The atmosphere extends 120 miles out but about 99% of its mass is within 20 miles of the earth. Dr. David Simons, an Air Force Flight Surgeon reached an altitude of 100,000 feet last year. The next problem will be to place a man in flight orbiting the earth at the fringes of the atmosphere. The medical problems of such flight will be reviewed by the next panelist.

Certain of these problems which have psychiatric implications are to be discussed in the present symposium. Following successful earth satellite flights and the soon to be tried lunar probes, the next goal will be a manned flight to the moon. This is a distance of 240,000 miles, or measured by

[1] Abstract of Symposium on Psychiatric Aspects of Space Travel, presented at the Southern Divisional Meeting of The American Psychiatric Association, Miami, Fla., Dec. 2, 1958.

[2] Assoc. Prof. of Psychiatry, College of Medicine, University of Florida, Gainesville, Fla.

prospective flight times, one day to one week, depending on the trajectory and the initial velocity of the vehicle. Successful lunar flight may pave the way for exploration and interplanetary travel. There will be then new problems of greatly extended flight times which will compound the medical problems. There will be new navigational and communication problems, new atmospheres to probe, additional radiation hazards, and so on. Venus and Mars are the most intriguing planets and the closest in our solar system. A preliminary attempt at a rocket probe of Venus has already been announced for 1959. Manned exploration of these planets will require years of travel under presently expected conditions.

Aviation medicine has contributed much to our basic knowledge of oxygen and carbon dioxide requirements and methods of exchange, to our knowledge of the problems of dysbarism, to our knowledge of cardiovascular and respiratory dynamics, and to the knowledge of mechanisms of body temperature maintenance.

Investigation of some of the expected psychophysiological problems will undoubtedly contribute to our knowledge of the function of the nervous system and our knowledge of human behavior under old and new stresses.

BIBLIOGRAPHY

1. White, M. S. : The Aeromedical Realities of Space Travel. J. Aviat. Med. 29 : 10, Oct. 1958.

EXPERIMENTAL STUDIES OF STRESS IN SPACE FLIGHT

GEORGE E. RUFF, CAPT. USAF (MC)[3]

Experimental studies of stress in space flight currently deal with problems of reduced atmospheric pressure, food and oxygen supply, removal of carbon dioxide and waste, radiation, acceleration, noise and vibration, extreme temperature changes, toxicity of fuels, isolation and prolonged exposure to danger.

These conditions are approached with the practical concept that they are stressful insofar as we can demonstrate that they activate compensatory mechanisms within the organism. In most experiments, the degree of stress is established by physiological measures, while the nature and meaning of the subject's reaction is determined by psychological measures. This reflects our feeling that psychological variables are more useful for indicating what kind of reaction has occurred than for determining its magnitude. Physiological variables, on the other hand, may indicate the degree of a reaction, but seldom tell what has happened or why it has happened.

A crucial question in space medicine concerns minimum conditions of pressure and gas concentration under which crews can function. In studies of this problem, subjects may live in a chamber maintained at one-half atmosphere for more than a week or remain in full pressure suits for several days. During such experiments the subject's infantile fantasies, as well as the possibility that equipment failure or operator error may cause death within a few seconds are realistic sources of anxiety.

In acceleration research, important variables are the subject's position, speed of onset, number of "G's" and duration. Centrifuge experiments demonstrate that in a seated position, with hips and knees flexed, most pilots will be able to remain conscious for the time required to reach escape velocity at "G" levels achieved by current rockets(1). Although the effects of zero "G" are less easily determined, they can be approached in studies where weightlessness is achieved in an outside loop.

While the factors determining "G"-tolerance are not completely understood, positive correlations have been found between aggressive, outgoing tendencies and the capacity to tolerate "G"(2). Our studies of brief periods of weightlessness suggest that although disorientation is common, most subjects enjoy the experience. It is difficult

[3] Chief of the Stress and Fatigue Section of the USAF Aeromedical Laboratory, Dayton, Ohio.

to predict, however, what will happen during longer periods of exposure.

Heat is another source of stress. Experiments in the Aero Medical Laboratory are carried out in a chamber whose walls can be heated to 600° F. Data from these studies show how long a subject can tolerate a specified atmosphere. The limit is either the onset of intolerable pain or impending heat stroke—indicated by a rapid rise in pulse rate and skin temperature.

Isolation experiments provide an opportunity to observe how different kinds of people adapt to unusual situations(3). These studies suggest that maintaining adequate sensory input during space missions will be less of a problem than providing adequate information input. The quantity and variety of stimuli available to crew members during space missions now being planned are expected to be adequate for a minimum of several weeks. For longer periods, however, the problem becomes more serious. Although a crew compartment can be designed to produce high levels of physical stimuli, it will not be easy to provide sufficient variety of experience to support effective human function for expeditions of many months or years duration(4).

BIBLIOGRAPHY

1. Clarke, N. P., Boundurant, S. O., Leverett, S. D.: Human tolerance to prolonged forward and backward acceleration. J. Aviat. Med.

2. Silverman, A. J., and Cohen, S. I.: Am. J. Psychiat., 113: 691, 1957.

3. Ruff, G. E., and Levy, E. Z.: Psychiatric research in space medicine. Am. J. Psychiat. 115: 793, Mar. 1959.

4. Ruff, G. E.: J. Astronautics., 4: 22, 1959.

SELECTION TECHNIQUES FOR SPACE CREWS

A. J. SILVERMAN, M.D.,[4] S. I. COHEN, M.D., AND B. M. SHMAVONIAN, M.D.

Accurate selection techniques depend in part upon accurate identification of the presumptive stresses. However, listening to a delineation of the manifold stresses expected, one is struck by their variegated nature. Further, the impact upon each individual of these various forces varies considerably depending upon the meaning these stresses have for him.

Thus, crew selection will involve such problems as:

(a) Determination of the personality types most suited to the mission in general, as well as the specific jobs they would be expected to carry out.

(b) The motivations and other psychological characteristics such as judgment, which might be expected to lead to the highest performance capability of the individuals.

(c) The conscious and unconscious attitudes which might be detrimental to individual and group functioning and methods to avoid these attitudes from occurring or interfering with the person's functional capacity.

(d) A delineation of the specific psychophysiological responsivity to various aspects of the mission, determined in parts (a), (b), and (c).

Decisions must be made as to whether we visualize a passive passenger, or an alert monitor.

Confounding the issue even further of whom to pick, is the essential changing nature of the environment in which our man will be (*e.g.*, the "sensory flooding" of take-off *vs.* "sensory deprivation," weightlessness, *etc.* for long periods).

Can we find people who are maximally resistant to these vastly different conditions? This state of affairs suggests that we are probably looking for persons maximally adaptable to the presumptive stresses, persons who can further be optimally conditioned and trained to them.

In the final analysis one must be concerned with the ability of the central nervous system to rally and compensate to a

[4] Assoc. Professor of Psychiatry and Chief, Psychophysiology Laboratory, Duke University, Durham, N. C.

stress and for the individual to maintain an ability to perceive and integrate external and internal stimuli and perform appropriate goal directed tasks. Excessive arousal of the CNS as well as excessive fatigue and sleep are both accompanied by a breakdown in these functions. Thus, those who cannot remain alert in the face of long lasting monotonous monitoring, or those who respond with excessive startle and hyperalerting or panic to sudden emergencies may pose a danger to the success of the mission.

Some indirect method of assessing CNS arousal and psychomotor functioning would hence be very valuable in such a selection program. Recent work has reexplored the use of the Galvanic Skin Response as an indirect index of arousal. Previous work with this bioelectric instrument employing psychologic and physiologic stimuli has resulted in correlations with degree of psychomotor activity and *amount* of hormonal and physiological change. In this way some of the characteristic psychophysiologic effects of special experimental situations incorporating some aspects of the "space" environment may be assessed(1, 2).

Of course, the GSR only indicates that the area is charged. It does not indicate how it is charged—doesn't indicate what affect is aroused or why.

To do this requires information regarding constitutional factors, personality data, usual defense mechanisms, as well as some knowledge of the immediate prestress psychophysiological state, as these factors relate to the person's responsivity to each specific "stressful" situation.

Although they have their limitations, broad band questionnaires may be of considerable screening aid ; *e.g.*, in attempting to predict a given reaction, one might consider as a poor risk in minimal sensory environments, a person who reports in a questionnaire that the most distressing thing for him would be confinement in a dark place with no escape.

In considering the crew, the limitations of space may require a small group living in close confinement. Since multiple functions will be expected of each individual, ease and speed of learning and trainability in new tasks will be important criteria. Much work has yet to be done in delineating the maximally functional group, but depending on the nature of the group, one might exclude the person with a history of constantly fighting and rebelling both against peers and authority figures, as well as those with pressing homosexual or other major neurotic conflicts. Some have even suggested that for longer trips marital partners might be appropriate.

Beyond these speculations, it seems clear that some compromises in selection must be made, lest the requirements become impossible to fulfill. Thus, engineers will undoubtedly be asked to design the space capsule so that it can accommodate the individual of average weight and size. There is some suggestion that designs are proceeding with the 90 percentile man in mind.

The first step in our program will be a call for volunteers from a cadre of men who have in general already demonstrated their responsivity under duress. Here the question of motivation must be examined to avoid those who seek solutions to neurotic problems. Volunteers for dangerous missions occasionally have rather bizarre motivations.

Using standard dynamic interviews and psychologic testing, those with gross judgmental defects or other major defects in ego integration, will be weeded out.

Part of the initial screening battery will deal then with such problems as flexibility of personality structure, motivation, cooperativeness, ability to be adventuresome, judgment, ego strength and intelligence in relationship to the identifiable stress factors.

The battery may also include some tests aimed at predicting response to certain specific psychophysiologic stresses. Tests may be used employing cues of specific affects and behavioral modes (and the subject's way of handling them) felt to be related to psychophysiologic responses. Other tests utilize situational cues incorporating elements of the experimental environment to which the subject will be exposed.

Using psychological test techniques we have been able to discriminate high and low resistance to forces of gravity as well as high and low cardiac output subjects,

and discrimination of ulcer and non-ulcer patients(3, 4, 5). Our initial success with this test gives hope that this can be duplicated by designing specific tests for other stresses. Some of this work is going on today in reference to sensory deprivation.

After this initial battery we will be faced with the task of training and conditioning individuals to withstand specific physical conditions. Similarly, repeated exposures to identified psychophysiological stresses such as sensory deprivation or weightlessness may reveal those who adapt best as well as decreasing their reactions and giving us clues regarding how to further minimize the stressful aspect of the proposed journey.

Beyond the use of these various test devices, analogous situations will be very valuable. The closer one can simulate the mission, the greater the chance of success in predicting the response to the eventual real conditions. Finally of course, the actual mission with its unknown dangers will provide the ultimately accurate process of "natural selection."

BIBLIOGRAPHY

1. Cohen, S. I., Silverman, A. J. and Burch, N. R. : J. Nerv. and Ment. Dis., **24** : 4, Oct. 1956.

2. Cohen, S. I., Silverman, A. J. and Shmavonian, B. M. : The Measurement of Human Adaptations to Stressful Environments, American Rocket Society Meeting, September 1958, New York.

3. Silverman, A. J., Cohen, S. I. and Zuidema, G. D. : J. Nerv. and Ment. Dis., **125** : 1, Jan.-March 1957.

4. Silverman, A. J., Cohen, S. I., Zuidema, G. D. and Lazar, C. S. : J. Projective Techniques, **21** : 2, 1957.

5. Zuidema, G. D., Silverman, A. J., Cohen, S. I. and Goodall, McC. : N. Eng. J. Med., **256** : 976, May 23, 1957.

DISCUSSION

EUGENE B. BRODY, M.D.[5]

The Problem of Learning.—Overtraining to the point of automaticity may be essential to the successful completion of any new task under adverse conditions. It has been demonstrated that the formal aspects of a highly differentiated skill can persist without a continuously associated high level of consciousness. The ability to respond with complex chains of survival-oriented or problem-solving behavior to any one of a large variety of internal or external signals may also be crucial in coping with unforeseen hazards. Adequate preparation for such circumstances might include training in the functions of integrative and conceptual thinking, recognizing that anxiety can seriously impair these functions.

The anxieties of space-flight.—An experiment can never include the threat of unpredictable and sudden or slow, foreseeable and inevitable death which will be pervasively present in the actual situation. Nor can it reproduce the full impact of undefined eternity-infinity, without the familiar points of orientation which give man's life meaning and define his identity. Western man's adventures in space may require the development of a point of view which reduces the significance of passing time and of immediate achievement and environmental control. Man enclosed in an orbiting capsule or coasting in space is in the passive position. His opportunity to discharge aggressive or libidinal tensions is sharply limited ; he has no power of self-determination in the sense in which he learned it while growing up, and this, as well as the nature of his physical surroundings, impairs his orientation in time. His ability to utilize "inner resources" in this position is probably related to his tolerance for helplessness, which in turn is related to capacity to master internal impulses. The sense of awareness and the sense of time (of Bergson) are both, in part, dependent upon freedom and the possibility of making choices. In space-flight, with its sharp limitation in this respect and the relatively patterned perceptual input, the tendency to slip into a state of reduced awareness may be heightened. The

[5] Professor of Psychiatry at the University of Maryland, School of Medicine, Baltimore, Md.

specific quality of any such state will be determined by the defensive needs of the individual, and the particular childhood traumata symbolically revived by the experience.

The central psychological problem of man's initial ventures into space may be that of separation. Separation anxiety in terms of child and mother are well known to psychiatrists. Separation from the earth with all of its unconscious symbolic significance for man, the breaking off of human relatedness which it implies, the disappearance of the interpersonal cues which help to give him identity, and the need to operate in a new space-time frame of reference—these are unexplored. These factors plus the sensory input patterns which may be encountered in space flight, and such apparently basic fears as that of impenetrable darkness might in theory at least be expected in time to produce—even in a well-selected and trained pilot—something akin to the panic of schizophrenia. The regressive defense may be revealed in symptom formations such as hallucinations or delusions, or the defense of denial may be reflected in seemingly plausible and convincing adherence to an inappropriate plan of action or, as was the case in Gibson's boat, the temptation to escape through suicide into oblivion may be accompanied by an urge to destroy the space vehicle and the rest of the crew as well.

Perhaps research might be directed to ways in which men can become able to give up certain needs for perceptual structuring, or certain aspects of object-control or self-determination. The unconscious elements beneath the rational interests in space-flight in a given individual may supply important clues. Psychoanalytic research (Kris, Hartmann) has already indicated that the ability to temporarily abandon some aspects of reality-testing and control may be important in artistic creation. The composition and training of crews to minimize mutual ambivalence and self-destructive tendencies in situations of enforced passivity may also require research into the construction of social organizations completely different from those now used by military units.

In any event, man's psychological plasticity is a matter of record, and if workable and habitable space ships are constructed, I am sure that effective pilots can be found to use them.

CLINICAL NOTES

A RAPID URINE COLOR TEST FOR TRIFLUPROMAZINE (VESPRIN)

FRED M. FORREST, M.D., IRENE S. FORREST, PH.D., AND AARON S. MASON, M.D.[1]

Simple and rapid, semi-quantitative urinary color tests in which 1 ml. of urine is mixed with 1 ml. of a reagent containing ferric chloride in dilute sulfuric acid were previously described by us for chlorpromazine (Thorazine), promazine (Sparine) and mepazine (Pacatal), the phenothiazine compounds first used on a large scale in psychiatric hospital practice(1, 2, 3). This test is readily performed by unskilled ward personnel, read immediately against a color chart for the specific drug, and was widely adopted since it proved useful in ward management. Its applicability, however, is limited to the above drugs which in psychiatric hospital practice are usually administered in daily doses ranging from 100 to several thousand mg.

The more recently developed phenothiazine compounds in which ring substituents, side chains or both were modified, require more sensitive and more specific reagents for tests of this type, in view of the fact that they are generally administered in considerably smaller daily doses. This means that lesser amounts of the reactive, intermediary drug metabolites which are responsible for the color reactions, are present in the urine, and that these small amounts will yield a proportionate scale of color reactions suitable for reading against a color chart only with more sensitive, individual reagents.

SPECIFIC VESPRIN TEST

During a clinical evaluation of trifluprom azine (Vesprin, Squibb) in the treatment of chronic mental patients, a sensitive test solution consisting of a 1/1000 molar solution of uranyl nitrate in concentrated hydrochloric acid (502 mg. $UO_2(NO_3)_2 \cdot 6H_2O$ in 1000 ml. conc. HCl)[2] was developed.

The test is performed by mixing 1 ml. urine first with 1 ml. 10% trichloracetic acid and then with 1 ml. of the uranyl reagent and should be read within 30 seconds against the Vesprin color chart. In approximately 1000 tests on the urines of chronic mental patients receiving daily doses of 10 to 600 mg. Vesprin, we found the average color reactions to range from pink shades for daily drug ingestion of from 10 to 70 mg. (corresponding to the + level of the color chart), to violet shades for daily doses of 75 to 200 mg. (++), and intense shades of purple for doses of 200 to 600 mg. (+++). The color chart represents average reactions for these three dosage levels, which were compiled from approximately 350 individual determinations covering the range of each of the three levels.

We have not seen any false negative tests, but extremely dilute urine specimens (resulting from fluid intake of 3 liters or more) may show correspondingly lower values of urinary drug level.

Less than 1% false positive tests (3 in 500) were encountered in 500 control urine specimens tested. These were due, apparently, to elevated urobilinogen levels, since no phenothiazine compounds were present. Bile and bile metabolites yield various color reactions with the uranyl reagent, and hence the Vesprin color test can not be properly evaluated in patients with impaired liver function showing abnormally elevated levels of bile metabolites, especially urobilinogen. If exact urinary drug levels are to be determined in these cases, the method reported by Salzman and Brodie (4) for chlorpromazine and its sulfoxide

[1] Respectively, Chief, Acute Service, Research Biochemist, and Director, Professional Services, VA Hospital, Brockton, Mass.

[2] Sensitive monitoring apparatus failed to detect any radioactivity of the test solution.

COLOR CHART FOR RAPID URINE TEST FOR TRIFLUPROMAZINE (VESPRIN)

PERFORMANCE OF TEST :

To 1 ml. urine add : 1.) 1 ml. 10% TCA *, mix gently, then add : 2.) 1 ml. U—reagent **. Match the color of the mixture in the test tube against the color chart below :

10-70 mg. **75-200 mg.** **205-600 mg.**

No color development in the urine indicates a negative test. A slight darkening of the urine without formation of pink or violet shades of color is considered negative.

Test Solutions :

* 10% TCA = 10% trichloracetic acid.

** U — reagent = 1/1000 molar solution of uranyl nitrate in concentrated hydrochloric acid.
(502 mg. $UO_2(NO_3)_2 . 6 H_2O$ in 1000 ml. conc. HCl)

should be applied after modification for trifluprom azine.

The presence of any phenothiazine drug other than Vesprin will interfere with this test by yielding composite color reactions. All phenothiazine compounds, including the mother substance and the various antihistaminics derived therefrom, react with the uranyl reagent by forming color reactions of various shades and intensities. Therefore the Vesprin color chart is not directly applicable to other phenothiazine compounds or mixtures thereof. However, the sensitivity of the uranyl reagent permitted us to follow the urinary excretion of Vesprin and other phenothiazine drugs on patients in whom medication was discontinued. While the urinary excretion period of phenothiazine drugs indicated in the literature varies, with the longest periods described by Citterio(5) and Fedorov and Shnol(6) as 4 to 7 days, we found distinct and decreasing drug levels for several weeks.[3] Accordingly, a patient switched from one chronically administered phenothiazine drug to another, will show a mixture of urinary drug metabolites for several weeks.

By analogous considerations, a Vesprin color test showing the ++ level of the color chart, does not permit one to distinguish between a 100 mg. dose ingested on the preceding day, and a 600 mg. dose swallowed a week prior to the test. It merely reflects the current urinary level of drug metabolite.

Non-phenothiazine derived drugs such as *e.g.* reserpine, barbiturates, meprobamate, the various energizers, vitamins, *etc.* do not produce color reactions with the uranyl reagent, and do not interfere with the Vesprin test.

STORAGE OF URANYL REAGENT

The 10% trichloracetic acid which is added to the urine before the uranyl reagent, serves the purpose of diluting the concentrated hydrochloric acid vehicle of the uranyl nitrate. It does not participate in the reaction, but eliminates some false positive tests. However, it can not be incorporated into the uranyl reagent which has to be kept in a tightly closed bottle. Any admixture of an aqueous or alcoholic component, or exposure of the uranyl reagent to atmospheric moisture renders it ineffective for formation of the color complex with Vesprin metabolite, due to a rapidly proceeding hydration process.

The Vesprin metabolite responsible for the color reaction is an intermediary oxidation compound which physiologically precedes or parallels the formation of sulfoxide(7). Its quantitative data and chemical characteristics are currently further investigated.

[3] A study on the rate of excretion of phenothiazine drugs is currently in progress in this hospital.

SUMMARY

A specific urinary color test for trifluprom azine (Vesprin) is reported in which 1 ml. of urine is mixed with 1 ml. 10% trichloracetic acid. To this mixture 1 ml. of 1/1000 molar solution of uranyl nitrate in concentrated hydrochloric acid is added. The resulting color is read within 30 seconds against a color chart showing three color intensities, marked +, ++ and +++, for daily drug doses ranging from 10 to 600 mg. of drug. No false negatives were encountered, and 0.6% false positive tests were seen. Potential factors of interference are discussed.

BIBLIOGRAPHY

1. Forrest, F. M. and Forrest, I. S. : Am. J. Psychiat., **113** : 931, 1957.
2. Forrest, F. M., Forrest, I. S. and Mason, A. S. : Am. J. Psychiat., **114** : 931, 1958.
3. Pollack, B. : Am. J. Psychiat., **115** : 77, 1958.
4. Salzman, N. P. and Brodie, B. B. : J. Pharm. & Exp. Ther., **118** : 46, 1956.
5. Citterio, C. : Lav. Neuropsichiat., **20/2** : 201, 1957.
6. Fedorov, N. A. and Shnol, S. E. : Zh. Nevropat. Psikhiat., **56** : 139, 1956.
7. Forrest, I. S., Forrest, F. M. and Berger, M. : Biochim. Biophys. Acta., **29** : 441, 1958.

CLINICAL EXPERIENCES WITH A NEW PHENOTHIAZINE

HERMAN C. B. DENBER, M.D., PAUL RAJOTTE, M.D., AND DOROTHY KAUFFMAN, R.N.[1]

Reports by Delay *et al.*(1), and Perrin *et al.*(2), suggested that R.P. 7843 (N-N-dimethyl-10-[3-(1-methyl-4-piperazinyl)-propyl]-2-phenothiazine sulfonamide dimethanesulfonate) was one of the most potent phenothiazines yet developed. Kurland and Vasconcellos(3), on the other hand, concluded that "the drug yielded a little or no therapeutic effect over and above that produced by previous phenothiazines and/or milieu treatment."

This is a preliminary report on its use[2] in 23 acute and chronic female psychotic patients treated in the research division ward which is operated as a therapeutic community. The ages ranged from 21 to 48 years, with 19 between 30-48 years. They had had from 1 to 15 readmissions. Twenty patients were schizophrenics with 10 in the paranoid sub-group. The duration of hospitalization was : to one year—12 ; 1-5 years —8 ; 9-18 years—2 ; 23 years—1. The number of previous drug, physiological or cerebrosurgical treatments varied from 1 to 10, with 13 patients having had between 3 and 7. All were observed daily on rounds and once weekly for evaluation. Blood counts and liver studies were done routinely.

The initial doses in 9 patients were given intramuscularly (0.5 mg.-3 mg. t.i.d.). The others received from 5-20 mg. orally b.i.d. or t.i.d. As of January 9, 1959, 12 patients were taking between 30-50 mg. t.i.d., with the range being 10-100 mg. t.i.d. orally. The duration of treatment was : 1-29 days—7 patients ; 30-59 days—4 ; 60-88 days—12. The results were : Much improved—4; improved—12 ; unchanged—6 ; worse—1.

A large number of side reactions (26) were noted, the most important of which are indicated below and many corresponding to the "syndrome excito-moteur"(1) : Tremors—15 ; extra-pyramidal syndrome—13 ; inversion of sleep rhythm—12 ; marked seborrhoea—10 ; excessive perspiration—9 ; drowsiness—8 ; blurred vision—6 ; jaundice —1. Agranulocytosis was not observed.

COMMENT

The compound was investigated in chronic patients of a higher age group, poor prognosis, and resistant to many prior treatments. The studies were carried out in a setting of maximum social support (therapeutic community) which, nevertheless, had not materially influenced the symptomatology.

It is essential that the dose be increased rapidly, every three days, in 10 mg. increments, until either clinical changes are noted or an extra-pyramidal syndrome appears. Kurland's extremely low doses(3) probably explain the negative results. We have found it best to begin with the intramuscular route (1-3 mg. t.i.d.) for approximately 5 days followed by the oral form. This is the first agent in which a dose-weight relationship seems to exist, for some patients (in the 100-110 lb. range) can develop a severe extra-pyramidal reaction on 5-10 mg. t.i.d. Our studies suggest it is preferable to avoid abrupt cessation of treatment(1) and to use anti-Parkinson agents liberally for attenuation of symptoms wherever necessary.

The jaundice developed in a 30 year old catatonic patient, 23 days after onset of treatment, at a dose of 40 mg. t.i.d. The bilirubin was 1.7 mg.% ; thymol 4.2 units, and cephalin flocculation 4+. There were no subjective complaints, although retrospectively post-prandial vomiting had been noted before the first positive laboratory reports.

The high incidence of extra-pyramidal symptoms reinforces again a possible relationship of the basal ganglia to therapeutic activity of phenothiazines.

The very favorable response in a patient group with such poor prognosis makes this compound worthy of further extensive

[1] Research Division, Manhattan State Hospital, Ward's Island, New York City 35, N. Y., and College of Physicians and Surgeons, Columbia University, New York, N. Y.

[2] Generous supplies of this drug (SKF-5883) were made available through the courtesy of Mr. William E. Kirsch, Smith, Kline and French Laboratories, Philadelphia, Pa.

trials. It is a highly potent drug to be handled with extreme caution and care. Each patient must be seen *daily* for dosage adjustment and be under constant medical and nursing observations.

Conclusion

The data confirm previous reports(1-2) concerning the high clinical potency of this phenothiazine.

BIBLIOGRAPHY

1. Delay, J., Deniker, P., Ropert, R., Barande, R., and Eurieult, M. : Ann. Méd.-Psych., **116** : 601, Oct. 1958.

2. Perrin, J., Lambert, P. A., Balvet, P., and Broussolle, P. : Ann. Méd.-Psych., **116** : 602, Oct. 1958.

3. Kurland, A. A., and Vasconcellos, J. : J. Nerv. & Ment. Dis., **127** : 378, Oct. 1958.

PRELIMINARY REPORT ON IMIPRAMINE (TOFRÃNIL)

PAUL E. FELDMAN, M.D.[1]

Current reports indicate a modest degree of success in the treatment of depressive states with the new energizing compounds (1-5). The clinical similarity of schizophrenic retardation to depressive retardation leads to the speculation that these same compounds might be of some value in the treatment of certain types of schizophrenia (which usually respond adversely to tranquilizer therapy).

Eighty-four schizophrenic patients whose clinical states could be characterized as regressed, withdrawn, indifferent, apathetic and "hyponormal" in terms of drive, interest in environment and motivation to relate to others, were treated with the anti-depressant drug imipramine.

Before and throughout the study, renal, hepatic and hemopoetic activity were assessed by a complete battery of laboratory tests. The average initial dosage was 50 mg./day, usually increased to 100-150 mg./day. A few patients were treated in the 300-400 mg./day range. Treatment was continued for a minimum of 60 days, other than for those patients who were terminated for cause.

In assessing the final results of this study, only patients who were considered to have shown a moderate or marked over-all improvement were reported to be significantly changed. This over-all assessment was based upon an evaluation of 24 criteria of behavior covering the entire range of schizophrenic behavior(6).

Twenty-three patients (27%) were terminated prior to the anticipated date for various reasons : 12 patients—for failure to make progress, or excessive hyperactivity ; 6 patients—weakness ; 3 patients—anorexia and weight loss ; 1 patient—increased frequency of seizures ; 1 patient—furunculosis. The incidence of untoward side effects was 12% and all side effects cleared promptly when medication was discontinued. Many of the side effects of imipramine reported in other studies(1-5) were not encountered in this study.

The laboratory findings were occasionally abnormal (alkaline phosphatase determination, indirect van den Bergh, thymol turbidity and cephalin flocculation), but these abnormal findings were encountered at unpredictable times during treatment, were not associated with clinical evidence of abnormality and this experience is similar to that occurring in un-medicated schizophrenic controls.

Forty patients (48%) were assessed to have shown a significant overall improvement as a result of imipramine therapy. The most striking aspects of this improvement were 1. Physical re-activation, 2. Increased interest in the environment and 3. Overt evidence of efforts to re-socialize. These changes became manifest as early as the second or third day of treatment.

Certain aspects of the patients' psychopathology (*i.e.*, delusions, hostility, hallucinations) remained unimproved in the majority of patients. To the contrary, this type of clinical symptom seemed to be intensified and aggravated by the treatment so that

[1] Director of Research and Education, Topeka State Hospital, Topeka, Kan.

we were confronted with the incongruous clinical picture of improvement in some areas and a coincident deterioration in others—in the same patient.

Consequently, we were gratified with the ability of imipramine to reactivate the inert, autistic, withdrawn schizophrenic but somewhat chagrined by the coincident aggravation of delusions, hallucinations, hostility and combativeness. The obvious solution to this dilemma, the addition of a tranquilizer to the therapeutic regime, is now being tested and will be reported at a later date.

Upon the basis of the results of this study, the conclusion that imipramine is capable of converting the hypo-active schizophrenic into a normo-active or hyperactive patient seems justified. This conversion to an active, accessible, remotivated patient provides opportunities for introducing other treatment modalities.

BIBLIOGRAPHY

1. Saunders, J. C., Kline, N. S., Vaisburg, N., Munster, A. J. and Barsa, J. A.: Psychic Energizers. Presented at the Soc. of Biol. Psychiat., San Francisco, Cal., May 10, 1958.

2. Freyhan, F. A.: The Pharmacological Modification of Mental Depression with Imipramine. First International Meeting on Neuro-Psychopharmacology, Rome, Italy, Sept. 12, 1958.

3. Azima, H. and Vispo, R. H.: Am. J. Psychiat., **115**: 245, 1958.

4. Lehman, H. E., Cahn, C. H. and de Verteuil, R. L.: Canad. Psychiat. Assoc. J., **3**: 155, Oct. 1958.

5. Kuhn, R.: Am. J. Psychiat., **115**: 459, 1958.

6. Feldman, P. E.: J. Clin. and Exper. Psychopath., **18**: 1, 1957.

PSYCHIATRIC RESPONSE OF GERIATRIC-PSYCHIATRIC PATIENTS TO MELLARIL (TP-21 SANDOZ)

LEOPOLD JUDAH, M.D., ODDIST MURPHREE, PH.D.,[1] AND LLOYD SEAGER, M.D.[2]

Since so high a proportion of our present day psychiatric population is geriatric we are obligated to evaluate new pharmacologic agents, as they become available, particularly those which seem well tolerated. Mellaril[3] (TP-21, Sandoz), a phenothiazine derivative, is reported by Cohen (1) to be practically without toxic or serious side reactions in therapeutic amounts, yet seems to be an effective tranquilizer. The drug has also been reported not to cause drowsiness. We are reporting a study wherein this drug was administered to an elderly group.

METHOD

Twenty-five test and 15 control patients were randomly divided and yet matched as to psychiatric morbidity as measured by rating scale (Lorr-Multidiminsional Scale for Rating Psychiatric Patients—MSRPP). The test group received Mellaril in gradually increasing dosage from 75 mg./day up to a continuous value of 500 mg./day for 9 weeks while the control group received placebos though this was not a completely double blind procedure. The treatment was stopped one week and begun again and increased to 700 mg./day and maintained there for 5 weeks. All patients were given the usual laboratory safeguards. Complete blood counts were done weekly and thymol turbidities were done monthly. Urinalyses were done monthly. All patients were given an initial physical examination, evaluated psychiatrically, clinically by their ward psychiatrist and continuously with the MSRPP. Median hospital stay was 27 years; median age was 63 years; median duration of symptoms 30 years. Eighty percent of the treated group and 73 percent of the control group were schizophrenic.

RESULTS

Of the original 25 patients beginning treatment with Mellaril, 20 continued to the end of the planned series. Two control patients were dropped from the study.

[1] From the VA Hospital, North Little Rock, Ark.
[2] From the University of Arkansas Medical Center.
[3] Supplied without charge by Sandoz Pharmaceuticals.

There is thus no difference in drop out between treated and control groups since the treated group was larger to begin with. There was no report of drowsiness. There were 3 mild cases of Parkinson-like features. One responded quickly to Artane—two did not require it. Cohen saw no Parkinsonism in his group.

As to the psychiatric response to Mellaril: In the combined opinions of ward psychiatrist, ward nurse and the leader of the nursing assistants, 13 of the 20 who completed the treatment were considered markedly improved (significant improvement in socialization) while 7 showed minimal or no improvement. None was worse. Of the control group who completed the study 2 were considered improved.

One month after stoppage of the drug, 9 of the 13 improved in the treated group had regressed to the pretreatment state. Four held the improvement and 3 of these were on trial visit from the hospital. On the same date, one of the control patients said to be worse had become improved but the rest had remained worse. The MSRPP began to indicate a reduction in morbidity level for the treated group near the end of the study but this never was of sufficient magnitude to be statistically significant.

COMPLICATIONS

There were no drug-induced blood abnormalities. There were 3 mild cases of Parkinson-like features; 1 responded quickly to Artane and the others did not need treatment. None was a problem and all could have been handled in an office atmosphere.

This is the third time the authors have evaluated a tranquilizer in a geriatric group. Our feeling is that Mellaril is superior to the other two, both of which were phenothiazine derivatives.

BIBLIOGRAPHY

1. Cohen, S.: Am. J. Psychiat., **115**: 358, Oct. 1958.

CATATONIC-LIKE STATES FOLLOWING PHENOTHIAZINE THERAPY

RUPERT H. MAY, M.D.[1]

Recently, Berry(1) published two case reports of cataleptoid states in children following perphenazine medication. Two similar cases of catatonic-like states produced by other phenothiazines were observed at the Cleveland Psychiatric Institute.

The first patient was a 34 year old, white, married female. About 3 weeks prior to admission she felt that fellow members of social organizations were criticizing her, and became somewhat withdrawn. She was admitted to another hospital in an acutely disturbed state, and treated with promazine. On this therapy she became mute, immobile and had to be spoonfed. A diagnosis of schizophrenic reaction, catatonic type was made, and after 10 days she was transferred to this Institute.

On admission she appeared unable to react to stimuli. Her face was waxy, oily and without voluntary movement. Salivation was greatly increased. She showed photophobia and her pupils would not react to convergence. Her deep tendon reflexes were hyperactive with occasional bilateral ankle clonus and patellar clonus. The Romberg test was positive. A typical flexibilitas cerea with immobility was exhibited. Speech was so impaired that thought process and content could not be evaluated. One discrepancy was outstanding: the negativism observed was not as severe as anticipated in regard to the severity of the other symptoms. She was treated for 3 days with Cogentin and improved gradually.

At this point she showed no overt schizophrenic symptoms. Later, it was demonstrated over a period of 5 days that an evening dosage of 25 mg. chlorpromazine or 5 mg. prochlorperazine produced a cataleptic state still recognizable the next morning. The patient was eventually discharged and made a fair home adjustment, within the limits of her pre-morbid personality.

Case #2 was a 35 year old, white, married female. Two weeks before admission she felt that people disliked her and that her husband

[1] Cleveland Psychiatric Inst. and Hosp., 1708 Aiken Ave., Cleveland 9, Ohio.

wanted to get rid of her. She was treated by her physician with proclorperazine, 200 mg. t.i.d. Under this medication, typical catatonic symptoms developed. Her posture became rigid, and both movements and speech were slow and deliberate. Affect was blocking, and thinking illogical, although hallucinations and delusions were not evidenced. She was admitted to this Institute as a schizophrenic reaction, catatonic type. Again the absence of *strong* negativism prompted us to doubt this diagnosis. Despite her catatonic-like symptoms she demonstrated some ability to accept help. Medication was discontinued and she was placed on small dosages of Cogentin. Four days later, this patient was free of catatonic features.

Both of these patients showed symptoms that—in combination—are diagnostic of catatonia: hypokinetic phenomena such as decreased motor activity, catalepsy, moderate negativism; hyperkinetic phenomena expressed in tremor and stereotypy; and autonomic phenomena, particularly increased salivation and respiratory changes. Although we cannot exclude the possibility that both patients were basically chronic (catatonic) schizophrenics, the fact that the episodes developed while under phenothiazine medications and disappeared following withdrawal of the drug indicates definite participation of the phenothiazines in the symptoms. As noted above, it was possible to reproduce the reaction by repeating medication with phenothiazines.

These cases support the findings of Berry (1): that cataleptic states resembling catatonic schizophrenic reactions can be produced chemically. So far, they have been observed after chlorpromazine, proclorperazine, promazine, and perphenazine. Drug-induced "catalepsy" is an established laboratory test for animal experimentation with phenothiazines(3). Using Brodie's(2) interpretation of the action by psychotropic drugs, occurrence of a catatonic-like state following phenothiazine therapy can be explained as follows: In persons with a constitutionally "allergic" make-up, phenothiazines act "by blockage of the ergotropic system through interfering with the action of brain norepinephrine," resulting in a preponderance of the trophotropic division with increased liberation of 5-hydroxytryptamine. This could, as demonstrated in animal experimentations(4), produce a catatonic-like picture in human individuals predisposed by an increased reactivity to this substance.

BIBLIOGRAPHY

1. Berry, R. V., *et al.*: U. S. Armed Forces M. J., **9**: 745, 1958.
2. Brodie, B. B., *et al.*: Postgrad. Med., **24**: 296, 1958.
3. Courvoisier, S., *et al.*: *in* Garattini and Ghetti: Psychotropic Drugs. Amsterdam: Elsevier Publishing Company, 1957, p. 373.
4. Sacchi, U., *et al.*: Boll. Soc. Ital. Biol. Sper., **31**: 663, 1955.

THE USEFULNESS AND EFFECTIVENESS OF EQUANIL® IN CHILDREN

KURT C. RAWITT, M.D.[1]

A double blind cross over study was designed to determine the effectiveness of Equanil [2] in the treatment of children, 40 boys 10 to 16 years of age, in whom one of the following psychiatric conditions was present: 1. Primary Behavior Disorder: conduct disturbance, 11 patients, character disorder, 2, neurotic traits, 7; 2. Secondary Behavior Disorders: psychomotor epilepsy, 2; 3. Early Infantile Autism: 3; and 4. Schizophrenia: childhood type, 15 patients.

The study was carried out over a period of 100 days. In the first 30 days, 20 boys received Equanil tablets (400 mg. each), and 20 received placebo tablets. Cross over occurred on the thirty-first day, and all tablets were discontinued on the sixtieth day. Observations were continued on all patients for a further period of 40 days.

[1] 142 Joralemon St., Brooklyn 1, N. Y.

[2] Trade name of Wyeth Laboratories for meprobamate (2-methyl-2-n-propyl-1, 3-propanediol dicarbamate).

In all cases, the initial dose of Equanil was 1 tablet, t.i.d. This dose was increased by 1 tablet, t.i.d., every 5 days, provided no notable change in the condition or behavior of the patient had occurred. The possible dosage range in the 30-day period was from 1,200 to 7,200 mg. The dosage was stabilized for 7 boys in 5 days (2,400 mg. per day), for 14 boys in 10 days (3,600 mg. per day), for 5 boys in 15 days (4,800 mg. per day), and for 14 boys in 20 days (6,000 mg. per day).

The boys felt happier, more easy-going, content, and passive, and were less inclined to fight. They enjoyed more play activities and social contacts. They appeared to be more relaxed and calm, showed marked improvement in social behavior, and marked signs of a "softening process" insofar as hostile, negativistic, defiant, and aggressive behavior were concerned.

Improvement occurred in 65% of the patients. Equanil appeared to be of considerable usefulness in the conduct disturbance group, somewhat less in the neurotic trait group, and least in the schizophrenic group.

The patients showed various reactions to the administration of the medication according to the length of time Equanil was administered. The response to the effect of Equanil appears to occur in 3 stages.

Stage 1. Fairly uniform responses of drowsiness, sleepiness with slowing of motor activity, slurring of speech and ataxia were noted as an early effect. These manifestations lasted from 7 to 10 days.

Stage 2. On the ninth or tenth day on maintained dosage level, a consistent clearing of sensorium took place. At this point the children became more malleable, manageable, responsive, and more conducive to psychotherapy.

Stage 3. The third stage was characterized by a markedly changed social attitude in the sense of greater cooperativeness, friendliness, helpfulness, and increase in sociability. These changes were observed for variable lengths of time, even after the interruption of the Equanil medication.

The effect of Equanil might be correlated with the effect of shock therapy, *i.e.*, after each application of an electroconvulsive or insulin treatment, there follows a period of confusion and clouding of sensorium which is observed for variable lengths of time. This period of depatterning with clearing of the sensorium is followed by repatterning.

The abrupt withdrawal of Equanil resulted in a temporarily sharp increase in tension, agitation, and anxiety. Convulsions and tantrum-like seizures were observed in 2 children. A latent convulsive tendency in these patients was suspected and verified in later EEG recordings.

After termination of the medication, all patients were observed for a period of 1½ months longer. Most of the improved patients appeared normally active, quiet, cooperative, alert, and far more sociable than before institution of Equanil therapy.

EXPERIENCES WITH P-M, G-M SUCCINYCHOLINE MODIFIED ELECTROCONVULSIVE THERAPY

ALLAN Z. SCHWARTZBERG, M.D.[1]

Recently Impastato(1) reported a petit mal grand mal succinylcholine modified electroconvulsive therapy without the use of barbiturates. This technique, which allows the dosage of succinylcholine to be considerably reduced, has markedly decreased post ECT apnea and respiratory depression. We would like to comment on the use of this technique with special reference to timing in 43 patients who received a combined total of over 400 treatments, administered by the Phipps Clinic resident staff.[2]

Before ECT, 0.6 mgm. of atropine was given intramuscularly along with 0.1 gm.

[1] Henry Phipps Psychiatric Clinic, Johns Hopkins Hosp., Baltimore 5, Md.

[2] The writer wishes to thank Mrs. Tamsey Leitch, nursing supervisor of the ECT unit, and Dr. John Hampson for their helpful suggestions.

seconal orally. One half hour later 10-15 mgm. of succinylcholine was administered intravenously; (in well-developed muscular individuals a starting dosage of 20 mgm. of succinylcholine was found to be more advantageous). Fifteen seconds after giving the muscle relaxant, P-M stimulation was given. This timing usually coincided with the onset of fibrillations of the mouth and jaw. The P-M stimulation resulted in unconsciousness and apnea. We feel that P-M stimulation after only 5-10 seconds provides inadequate relaxation due to insufficient succinylcholine effect and results in an unnecessarily severe tonic spasm. A setting [3] of 90-100 volts for 0.1 second with a single attenuated stimulus was employed to evoke the P-M phase. Twenty seconds later grand mal stimulation (producing grand mal convulsions in all of our patients) was given at a setting of 120 volts for 0.5 second. This time interval permitted adequate relaxation in all patients since the succinylcholine effect was fully obtained. A large number of patients breathed spontaneously at the end of the treatment. In others the average duration of post ECT apnea was 10-40 seconds with only occasional mild cyanosis. Post ECT oxygenation was usually limited to 30 seconds when it was required. As with all ECT techniques a free air way is essential.

Using this technique we were able to transfer 9 patients from higher to lower dosages of succinylcholine (*e.g.*, 25 mgm. to 10 mgm.) while still obtaining the same degree of three or four plus relaxation. Five patients who were quite well developed and muscular, required an increase in succinylcholine dosage. The highest dosage given was 28 mgm. The duration of post ECT apnea appeared to bear a definite relationship to the succinylcholine dosage; the higher the dosage, the more prolonged the apnea. Post ECT excitement occurred in three patients who were initially quite fearful of the treatment. We agree with Impastato that fear of the treatment did not seem to be due to the P-M, G-M technique (no significant difficulties or complications were experienced). Two patients who thought they felt "electricity" during the P-M stimulus received surital to allay their apprehension. An earlier ECT technique using atropine, surital and succinylcholine resulted in periods of post convulsive apnea ranging from 2-10 minutes.

In conclusion, the modification of the P-M, G-M technique described here appears to provide a quick, safe, effective and simple method of administering ECT. Adequate muscle relaxation is obtained with virtual elimination of post ECT apnea and respiratory depression.

[3] The Medcraft B-24 alternating current apparatus was used.

BIBLIOGRAPHY

1. Impastato, D. J.: Am. J. Psychiat., **114**: 8, Feb. 1958.

CASE REPORTS

ACUTE TOXIC HYPERTENSION DUE TO TRIFLUPROMAZINE : REPORT OF A CASE

HARRY F. DARLING, M.D.[1]

This 43 year old chronically disturbed schizophrenic has been hospitalized 25 years. Electric shock treatment was ineffective. Reserpine was tried but she became so stuporous it had to be discontinued due to severe convulsions. Thiopropazate was tried but was discontinued due to severe convulsions. She became regressed, violent and destructive. Trifluprομazine was then tried. Prior to the first 25 mg. tablet, blood pressure was 98/56. Two hours later it was 264/160. She was treated with intravenous aminophyllin and in 2½ hours it dropped to 150/92, then hovered between 136 and 150 systolic for 2 days. It then varied between 82/50 and 112/66 for the next week. She was cautiously started on promazine in 25 mg. doses. During the first 4 days of this treatment she exhibited a rise in blood pressure, the highest being 154/84. Gradually the promazine was increased. At 300 mg. per day she had a grand mal type convulsion but the medication was continued and she is now on 600 mg. promazine daily with 100 mg. mepazine for extrapyramidal symptoms. She is still regressed but tractable. No other medication was given concurrently with the ataraxics.

Moderate hypertension was observed also in another patient when treated with thiopropazate. She had not manifested this side effect with reserpine, chlorpromazine, perphenazine, proclorperazine, or trifluprομazine, but had other side effects with each of these drugs.

[1] Danvers State Hosp., Hathorne, Mass.

DEATH DUE TO MASSIVE OVERDOSE OF MEPROBAMATE

ISADORE KAMIN, M.D.,[1] AND DONALD A. SHASKAN, M.D.

Meprobamate has had remarkably wide use since its introduction as a tranquilizing agent. One of the factors responsible for this is that it is relatively non-toxic. Early reports emphasized that even massive doses (*e.g.* 40 grams) caused no serious consequences(1).

Now, with more patients under treatment, for a longer time, accounts of serious side-effects are appearing. The Council on Drugs of the AMA concluded recently that "meprobamate is capable of producing a rather wide variety of side-effects . . . some of these are alarming and potentially hazardous"(2). There has been concern, too, about addiction(3).

Death as a complication of meprobamate medication is exceedingly rare, and was first reported in June 1957. Aplastic anemia developed in a woman taking 1,200 mg. of meprobamate daily for 8 days who died on the twenty-third hospital day(4). There are only 2 other cases that we could find : a recent article listed death occurring after the ingestion of 12 gm. and 20 gm., respectively, of the drug(5). Perhaps these deaths are too few in number for sufficient cognizance to be taken of them. At any rate, statements such as "death due to meprobamate alone is rare, if it has ever occurred at all" still are made(6). In order to underscore the opinion that meprobamate can have fatal consequences, we wish to report a death following the ingestion of 47.6 grams (119 tablets) of the drug, the largest dose yet reported.

[1] From the Veterans Administration Regional Office Mental Hygiene Clinic, San Francisco 3, Calif.

Case Report : This patient was 35, white, single, male, 6 feet tall, weighed 240 lbs. From the age of 17 on he was hospitalized often, and for varying periods of time up to 16 months. Diagnosis : schizophrenic reaction, simple type. He led an isolated, nomadic life, was chronically unemployed. Since 1952 his treatment alternated between the VA Hospital, Palo Alto, California, and the outpatient clinic of the VA Regional Office in San Francisco. At the clinic he received individual and group psychotherapy with the adjunctive use of tranquilizing drugs.

On September 15, 1958, because of mounting anxiety, he left a group therapy session, requested and received medication consisting of 120 tablets (400 mgm. each) of meprobamate to be taken q.i.d. The next morning he was found unconscious in his hotel bed. Next to him on the table was the prescription bottle containing one white tablet. He was hospitalized but in spite of stomach lavage, tracheotomy, i.v. fluids, cardiac stimulants, he died within 2 hours of arrival. Clinical diagnosis : Drowning due to aspiration of gastric contents and ingestion of Miltown. The dose of meprobamate that this patient took represents 436 mg. per kgm. of body weight. (In the other two suicides the dose was 240 mg. and 350 mg. per kgm. respectively, indicating considerable individual variation.)

The Office of the Coroner (Henry W. Turkel)[2] reported the following pertinent autopsy findings : *Gross* : The bronchial tree contains considerable bloody mucus. The lungs show mild basilar congestion and edema. *Microscopic* : Pulmonary parenchyma shows congestion, edema, hemorrhage and moderate atelectasis.

Diagnosis :	Pulmonary Congestion, Hemorrhage and Edema.
Cause of Death :	Meprobamate Poisoning.
The Toxicologist's findings :	Meprobamate is present in the tissues ; liver level 2 mgm. %. No alcohol, barbiturates or common poisons.

[2] We wish to acknowledge the assistance of the Coroner, Henry W. Turkel, and his staff, Albert E. Warrens, Henry D. Moon, and C. H. Hine.

Summary

This is the description of a case of acute meprobamate intoxication due to the ingestion of 47.6 grams of the drug with fatal outcome. We wish to emphasize that meprobamate should be used with the same careful consideration that any therapeutic agent deserves.

BIBLIOGRAPHY

1. Selling, L. S. : JAMA, **157** : 1594, 1955.
2. Council on Drugs, AMA : JAMA, **164** : 1332, 1957.
3. Mohr, R. C. and Mead, B. T. : New England J. Med., **259** : 865, 1958.
4. Meyer, L. M., Heeve, W. L. and Bertscher, R. W. : New England J. Med., **256** : 1232, 1957.
5. Powell, L. W., Jr., Mann, G. T., and Kaye, S. : New England J. Med., **259** : 716, 1958.
6. Page, James A. : Personal Communication.

PROLONGED HYPOTENSION DUE TO CHLORPROMAZINE

W. J. STANLEY, M.B., Ch.B.[1]

Case Report.—The patient, a man of 43 years, was admitted with a diagnosis of hypomania. He was known to have rheumatic heart disease and had previously received treatment for subacute bacterial endocarditis. His exercise tolerance was good and there was no history of cardiac failure. On examination, the general condition was good ; the heart rhythm was regular and the heart was not enlarged. The mitral first sound was accentuated and a mitral diastolic murmur was present. The blood pressure was 130/80. Electrocardiogram was within normal limits.

In view of his overactivity and restlessness, chlorpromazine (50 mg.) was given intramuscularly because of his refusal to take tablets. He was instructed to remain in bed, but two hours after the injection he got out of bed to go to the toilet, and fell to the floor after taking a few steps. On examination, he was unrousable, the radial pulse was not palpable, and the blood pressure was unrecordable ; the heart rhythm was regular at 60 per minute. The foot of the bed was raised, and 0.2 mg.

[1] Senior Psychiatric Registrar, Winwick Hosp., Warrington, Lancs., Eng.

of nor-adrenaline ("Levophed Special Solution") was given intravenously. The blood pressure rose to 120/70 almost immediately afterwards, but fell again to 80/? after about 2 minutes. The patient regained consciousness. An intravenous drip of normal saline solution containing 4 mg. of nor-adrenaline per litre was set up, and the rate adjusted so as to maintain the blood pressure at about 120/80. At intervals the drip rate was slowed to see if the blood pressure could be maintained without nor-adrenaline, but 12 hours after the injection of chlorpromazine, slowing the drip rate caused a rapid fall to 80/50, and the drip was therefore continued. The next day the drip was stopped without a fall in blood pressure, and the patient felt quite well.[2]

Discussion

Hypotension is a recognized complication of treatment with chlorpromazine, but is rarely a serious problem. Hussar(5) states that hypotension occurs more often after intramuscular than after oral administration, in patients receiving large doses, and in elderly or arteriosclerotic subjects. It is more severe in the upright position or after a sudden change to the upright position. He points out that occasionally severe and lasting hypotension may occur, particularly in patients with cardiovascular disease, and mentions a patient with mitral stenosis who developed tachycardia and died after being given chlorpromazine.

Weiss(9) reported severe hypotension in a patient who was given electroconvulsive therapy whilst receiving oral chlorpromazine (250 to 400 mg. daily). Subsequent ECT after discontinuation of chlorpromazine did not cause hypotension, and the author concluded that the combined treatment should only be carried out with great care because of the risk of severe collapse. Denber(3) however did not agree that chlorpromazine was necessarily responsible for the above reaction, and pointed out that apnoea, cyanosis, collapse, and death have occurred with ECT.

Meyer(6) described a case of sudden cardiovascular collapse leading to death 5 days later in a female patient aged 52 years who was receiving treatment with chlorpromazine for agitated depression. She was hypertensive (BP—200/150) before treatment began, and at autopsy was found to have chronic purulent bronchitis with broncho-pneumonic changes in the right lower lobe, dilatation of the right ventricle, sclerosis of the mitral valve, and multiple haemorrhages in the gastric mucosa. Oral chlorpromazine had been given for 16 days before collapse occurred, and she was then receiving 300 mg. of chlorpromazine and 100 mg. of promethazine daily.

In a series of 150 alcoholic patients treated with chlorpromazine, Mitchell(7) reported one or more severe hypotensive attacks in 7 patients, all of whom were receiving 600 mg. daily. One patient who was given 300 mg. daily had two syncopal attacks, death occurring after the second. Necropsy showed congestive heart failure and advanced cirrhosis of the liver.

Rea *et al.*,(8) found that of over 300 patients treated with chlorpromazine, only 7 had a fall of blood pressure severe enough to require intensive therapy. One of these patients died with acute renal insufficiency several days after the hypotensive episode, and the authors concluded that as there was no previous evidence of renal disease, this complication must have been due to the hypotension. Four of these 7 patients were suffering from delirium tremens, and the authors remark that vascular collapse may frequently be a cause of death in this condition, though they considered that chlorpromazine was either a precipitating or contributory cause of the hypotension. They noted that in patients given the drug intramuscularly, collapse did not occur until 6 hours after administration.

A non-fatal hypotensive reaction in a man of 71 years given oral chlorpromazine to control restlessness was reported by Burstein *et al.*,(1). Treatment with l-nor-adrenaline was continued for 9 days, though chlorpromazine was also given during this period. The patient had had a coronary thrombosis 4 years previously, and had radiation-induced pulmonary fibrosis following treatment for carcinoma of the oesophagus.

Cohen(2) described a middle-aged normotensive woman who showed signs of

[2] I would like to thank Dr. G. J. Harrison and Dr. D. Ellis for permission to publish this case report, and the Medical Information Division of Messrs. May and Baker, Ltd., for their help with the references.

vascular collapse 3 hours after a single intramuscular injection; the condition persisted for 6 hours before resolving. The same author saw a shock-like state lasting one hour in an 81-year-old, normotensive, arteriosclerotic man who had been receiving an oral dosage of 100 mg. of chlorpromazine daily for 4 days.

In view of the great number of patients who receive chlorpromazine therapy, especially psychiatric patients who are often given large amounts of this drug, reports of serious complications are relatively rare. With reference to the complication which occurred in the present case, though mild degrees of postural hypotension are common, severe and fatal cardiovascular reactions appear to have been rare, and have been reported much more commonly in patients whose physical condition before chlorpromazine administration was poor. Patients with cardiovascular disease, and alcoholism, seem to be particularly liable to such reactions, and as the present case indicates, a severe reaction may follow quite small doses, especially when given parenterally. That there is an element of idiosyncrasy is clear when one considers reports such as that of Douglas *et al.*,(4), whose patient did not develop hypotension after taking 390 tablets of chlorpromazine (25 mg. each) in a suicidal attempt.

It would therefore seem to be advisable to avoid chlorpromazine in the types of patient mentioned above, but in a given case, if it is decided that the possible benefits of chlorpromazine therapy outweigh the risks, the oral rather than the intramuscular route should be used, and small doses should be given in the early stages of treatment; a close watch should be kept upon the blood pressure, and the patient should be confined to bed, since severe hypotension may follow the adoption of the erect posture many hours after administration of the drug.

Nor-adrenaline seems to be the treatment of choice in severe hypotension following chlorpromazine; in mild cases, it is only necessary for the patient to lie down for a few hours until the action of the drug has worn off.

BIBLIOGRAPHY

1. Burstein, S., and Sampson, J. J.: Calif. Med., **82**: 45, 1955.

2. Cohen, I. M.: Am. J. Psychiat., **113**: 115, 1956.

3. Denber, H. C. B.: J.A.M.A., **158**: 586, 1955.

4. Douglas, A. D. M., and Bates, T. J. N.: B. M. J., **1**: 1514, 1957.

5. Hussar, A. E.: GP, **15**: 85, 1957.

6. Meyer, H. H.: Deutsche med. Wochenschrift, **78**: 1097, 1953.

7. Mitchell, E. H.: Am. J. Med. Sci., **229**: 363, 1955.

8. Rea, E. L., Shea, J., and Fazekas, J. F.: J.A.M.A., **156**: 1249, 1954.

9. Weiss, D. M.: Am. J. Psychiat., **3**: 617, 1955.

COMMENT

INTERNATIONAL CONFERENCE ON THE INSULIN TREATMENT IN PSYCHIATRY

The International Conference on the Insulin Treatment in Psychiatry was held on October 24-25, 1958, at the New York Academy of Medicine. It was sponsored by the Manfred Sakel Foundation and by Drs. D. Ewen Cameron, Jacques S. Gottlieb, and S. Bernard Wortis. Prof. Otto Poetzl, M.D., of the University of Vienna was the honorary president.

Dr. Joseph Wortis opened the conference with a paper on the history of the insulin hypoglycemia treatment. Physiological changes during treatment were dealt with by Dr. Ivan F. Bennett (blood changes), Williamina A. Himwich, Ph.D. (biochemical changes in the brain), Charles A. Sawyer, Ph.D. (electroencephalographic changes), Dr. Samuel Bogoch (neuroaminic acid in the spinal fluid before and after insulin therapy).

Dr. Hans Hoff gave the history of the organic treatment of schizophrenia and he and Dr. O. H. Arnold presented results of treatment at the University of Vienna. All their cases were severe and of unquestioned diagnosis. Insulin coma, combined at times with ECT, was used with psychotherapy and rehabilitation measures in all cases. After 5 years 81% of their patients were considered recovered. Most of the relapses occurred during the first year.

Dr. William Sargant reported that 67 hospitals in southern England had used insulin treatment for the last 10 years. Only 9 of these hospitals have now discontinued the insulin method, although in many others its use has been curtailed. ECT and insulin are combined when indicated. Sargant reported results comparable to those of the Vienna group. Both Hoff and Sargant noted that the United States had gone farthest in giving up insulin treatment and both were somewhat critical of this precipitous move. Dr. Behrman of Argentina and Dr. A. C. Pacheco e Silva of Brazil also reported good results from insulin coma therapy and still considered it the basic treatment for schizophrenia.

Dr. Paul H. Hoch discussed the case of both insulin and drug treatment, and stated that there is an insulin unit in every one of the New York State Hospitals. He considered both methods valuable but was not prepared at this time to compare their efficacy. Dr. Karl M. Bowman discussed current trends in insulin treatment. Dr. Andrew K. Bernath reported on modifications of anxiety following mild insulin hypoglycemia. Dr. O. H. Arnold spoke on the mechanisms of the insulin effect. Dr. Daniel M. Weiss discussed the use of insulin therapy in a Veterans Administration hospital and Dr. Karl T. Dussik dealt with the use of insulin in an active treatment unit of today.

There was a lively discussion of the relative merits of new therapies. Some felt rather optimistic regarding the use of the new drugs, but the concensus was that it is too early to pass judgment on the value of these various drugs. The "total-push" therapy was advocated, in which insulin would be used with electroshock and with drugs as indicated, and with psychotherapy and rehabilitation work in all cases. Many considered this the best way of treating schizophrenia at our present state of knowledge.

The Manfred Sakel Foundation plans to publish in book form the papers presented at this conference.

K.M.B.

NEWS AND NOTES

Czechoslovak International Psychiatric Congress.—The Congress will take place at Jeseník Spa/Gräfenberg, September 7 to 11, 1959. The main theme is the neuroses in their biological, psychological and social aspects; also toxic psychiatric disorders and the problems of alcoholism.

The personal participation of foreign guests, as well as their contributions, will be warmly welcomed. In addition to Czech and Slovak, the languages of the Congress will be Russian, French, English and German. Papers may be delivered in any of these languages and will be simultaneously interpreted into all the others.

Participants in the Congress and members of their families will be offered a full social and recreational program, including excursions to the surrounding mountains, psychiatric establishments, and places of historical and cultural interest.

For further information write to Dr. E. Wolf, Secretariat of the Psychiatric Congress, Ke Karlovu 11, Praha 2, Czechoslovakia.

List of Studies on Psychopharmacologic Drugs.—A composite list of 137 research studies on psychopharmacologic drugs being conducted under grants from the National Institute of Mental Health, Public Health Service, is now available.

For a copy of this list, including the name of each investigator, his institution, and a brief description of his project, write to the National Institute of Mental Health, Bethesda 14, Md.

Mental Health Research in the South.—This unique state-by-state study has been launched by the mental health program of the Southern Regional Education Board, according to Dr. William P. Hurder, director of the program and the study. The SREB stands ready to assist states in solving those research problems which can best be attacked through regional cooperation.

The Council of State Governments will provide data it has collected from the 48 states on methods of organizing and financing state-supported research in mental health and related areas.

Referring to the need for this type of study, Dr. Hurder cited a remark by Admiral Hyman G. Rickover pointing out that the home permanent wave industry budgeted for research into ways of improving the looks of human hair a sum amounting to 2 cents per capita per United States female. The whole nation, meanwhile, was spending only 3 cents per capita for research into the distressing things that go on inside the human head.

Annual Workshop in Projective Drawings.—The 1959 Annual Workshop in Projective Drawings will be conducted at the New York State Psychiatric Institute, New York City, by Emmanuel F. Hammer, Ph.D. and Selma Landisberg, M.A., July 27-30. The workshop will provide a grounding in fundamentals, differential diagnosis, and the application of drawings in therapy.

The text, *Clinical Application of Projective Drawings*, Charles Thomas, Publisher, Springfield, Ill., is suggested as preparation for the workshop.

For further information write to Miss Selma Landisberg, 116 East 35th St., New York 16, N. Y.

Brooklyn Psychiatric Society.—The following are the newly elected officers of the Brooklyn Psychiatric Society for 1959-60: president: Sidney Green, M.D.; vice-president: Abbott Lippman, M.D.; and secretary-treasurer: Morton Golden, M.D.

Dr. Joseph Parker to Head Psychiatry at University of Kentucky.—Dr. Joseph B. Parker, Jr., associate professor of psychiatry at Duke University and chief of psychiatric service at the VA Hospital, Durham, N. C., has been appointed psychiatry department chairman for the University of Kentucky's new medical center in Lexing-

ton, and professor of psychiatry. He will assume his new duties in the late summer, 1959.

84TH ANNUAL MEETING OF THE AMERICAN NEUROLOGICAL ASSOCIATION.—The 84th Annual Meeting of The American Neurological Association will be held at the Claridge Hotel, Atlantic City, N. J., June 15-17, 1959, under the Presidency of Dr. Bernard J. Alpers.

For futher information write to the Secretary, Dr. Charles Rupp, 133 South 36th St., Philadelphia 4, Pa.

SEMINAR-WORKSHOP IN GENERAL SEMANTICS.—The 16th annual summer seminar-workshop in general semantics will be held at Western Reserve University, Cleveland, Ohio, August 15-31, 1959. The basic course for teachers, trainers, researchers, executives will study the theory, principles and practice of general semantics.

For further information write to The Registrar, Institute of General Semantics, Lakeville, Conn.

ACADEMY OF PSYCHODRAMA AND GROUP PSYCHOTHERAPY.—The Academy, under the personal direction of Dr. J. L. Moreno, will conduct a 3-weeks practicum-seminar at the Group Theatre of Psychodrama of the Moreno Institute, from July 3 to July 24, 1959. The seminar will deal with the philosophy and methods of psychodrama, sociodrama, role playing, sociometry and group dynamics. A number of part scholarships are available for selected applicants.

For further information write to The Academy of Psychodrama and Group Psychotherapy, Moreno Institute, 259 Wolcott Ave., Beacon, N. Y.

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC.—The American Board of Psychiatry and Neurology, Inc. announces the following schedule of forthcoming examinations :

Chicago, Ill.—October 19 and 20, 1959

New York, N. Y.—December 14 and 15, 1959

San Francisco, Calif.—March 14 and 15, 1960.

BULLETIN ON SCHOOL HEALTH SERVICES.—The Council of Chief State School Officers and the Association of State and Territorial Health Officers have published a newly revised 52 page edition of the 1951 bulletin entitled *Responsibilities of State Departments of Education and Health for School Health Services.*

The bulletin may be ordered from Council of Chief State School Officers, 1201 Sixteenth St., N.W., Washington 6, D. C. Price : 35c.

NEW COURSE IN BRAIN FUNCTIONING AT CORNELL.—A pioneering course in brain functioning entitled "Brain Mechanisms and Models" will be offered at Cornell University, Ithaca, N. Y., starting September 1959. Sponsored jointly by the departments of mathematics, psychology and zoology, the course will deal with the relationships between mechanical functioning and the processes of thinking and knowing, and with the extent to which man-made mechanisms can duplicate human intellectual processes.

ANNUAL INDEX

This periodical is indexed alphabetically under both Subject and Author entries.

In searching for a specific article the Author entry should be consulted if the name of the author is known, since the complete bibliographical reference is to be found only after the author's name. When there are two or more authors for an article the complete entry appears only under the name of the first author. Under the names of each of the joint authors a cross reference is made to the original author entry.

The same applies to book reviews, the complete title of the book being listed under the author's name in the list entitled Book Reviews in the Subject Index.

Titles under the Subject Index are often inverted or shortened, and when there are two or more authors, the name of only the first is shown. For the complete author reference, the Author Index should be consulted. The Subject Index covers original articles, biographical and historical materials, book reviews, in memoriams, and editorial comments.

Complete book titles are listed under Book Reviews in the Subject Index. Ed. indicates an editorial comment; H.N. a historical note; C.N. a clinical note; C.R. a case report; and A.N. administrative note.

SUBJECT INDEX

A

Abortions: The Psychiatric Indication for (Corr.); 260, Sept. '58.

Academic Lecture: The Way Ahead; J. R. Rees, 481, Dec. '58.

Administrative Psychiatry: *See also* Open Door, and Mental Hospitals.

Administrative Psychiatry (Review of Psychiatric Progress, 1958); J. Martin Myers.

Commitment Procedures and the Advancement of Psychiatric Knowledge; Jacques Gottlieb, 109, Aug. '58.

Discharges From Mental Hospitals (A.N.); Sidney L. Sands, 748, Feb. '59.

The Nonpsychotic Offender and the State Hospital; Reginald S. Rood, 512, Dec. '58.

Patient Government (A.N.); M. G. Jacoby, 943, Apr. '59.

Adrenalectomy: Bilateral in Chronic Schizophrenic Patients Six Years After; Nathaniel S. Apter, 55, July '58.

Adrenochrome: Is Adrenochrome Present in the Blood? (C.N.); Stephen Szara, 162, Aug. '58.

Age: *See* Geriatrics.

Agnosia:

Mental Symptoms as Phenomena of Agnosia, Apraxia and Aphasia; Arthur N. Fleiss, 340, Oct. '58.

Re: Agnosia, Etc. (Corr.); 754, Feb. '59.

Agranulocytosis: *See* Psychopharmacology, Side Effects.

Akerfeldt Test: An Investigation of the Validity and Reliability of (C.N.); Philip Gussion, 467, Nov. '58.

Alcoholism:

Alcoholism and Geriatrics (Review of Psychiatric Progress, 1958); Karl M. Bowman, 619, Jan. '59.

Effect of Dextrose, Fat Emulsion and Amino Acids on the Rate of Disappearance of Alcohol in the Blood (C.N.); J. Schiller, 365, Oct. '58.

Seasonal Variation in the Incidence of Severely Crippling Mental Disorders II: Alcoholism (C.N.); Nelson J. Bradley, 813, Mar. '59.

Treatment of Chronic Alcoholics with Citrated Calcium Carbimide (Temposil) (C.N.); Jackson A. Smith, 822, Mar. '59.

American Board of Psychiatry and Neurology, Inc.:

Examination Results: 278, Sept. '58; and 833, Mar. '59.

Founding of the American Board of Psychiatry and Neurology, Inc.; Walter Freeman, 769, Mar. '59.

American Melting Pot: Its Meaning to Us; J. M. Radzinski, 873, Apr. '59.

American Psychiatric Association:

The American Psychiatric Association in Relation to American Psychiatry; Harry C. Solomon, 1, July '58.

The 1958 Annual Meeting (Ed.); 83, July '58.

Official Reports:

Hospitals Approved and Conditionally Approved by the Central Inspection Board, 173, Aug. '58.

Report of the Coordinating Committee on Community Aspects of Psychiatry, 374, Oct. '58.

Report of the Coordinating Committee on Professional Standards, 555, Dec. '58.
Report of the Coordinating Committee on the Technical Aspects of Psychiatry, 170, Aug. '58.
Report of the Nominating Committee, 753, Feb. '59.
Amygdalae and Behavior; Jules H. Masserman, 14, July '58.
Anorexia Nervosa: Diagnosis, Treatment and Results in; James H. Wall, 997, May '59.
Anxiety:
Anxiety-Depressions and Pharmacotherapy-Correlations (C.N.); Jerome M. Schneck, 77, July '58.
The Symptomatic Relief of Anxiety with Meprobamate, Phenobarbital and Placebo; E. H. Uhlenhuth, 905, Apr. '59.
Army Prisoners: Some Antecedent Factors in; Adolf Haas, 143, Aug. '58.
Ataraxics: *See* Psychopharmacology.
Atropine Coma: A Somatic Therapy in Psychiatry; Gordon R. Forrer, 455, Nov. '58.

B

Biochemistry: Neuropathology, Endocrinology and Biochemistry (Review of Psychiatric Progress, 1958); O. R. Langworthy, 589, Jan. '59.
Blain, Daniel: An Appreciation (Ed.); 369, Oct. '58.
Blood Types: Schizophrenia in Relation to Blood Groups ABO and Blood Types RH.D. and MN (C.N.); C. R. Lafferty, 161, Aug. '58.
Book Reviews:
Ackerknecht, Prof. Dr. Erwin H.: Kurze Geschichte der Psychiatrie, 1050, May '59.
Ajmone-Marsan, Cosimo; and Ralston, Bruce L.: The Epileptic Seizure, it's Functional Morphology and Diagnostic Significance, 847, Mar. '59.
Alexander, Irving E.: *See* Reed, Charles F., jt. ed.
Allen, Robert M.: Personality Assessment Procedures, 672, Jan. '59.
Alpers, Bernard J.: *See* MacNeal, Perry S., jt. auth.
Alstrom, Carl Henry; and Olson, Olof: Heredo-Retinopathia Congenitalis, 668, Jan. '59.
Altschul, A.: Aids to Psychiatric Nursing, 863, Mar. '59.
Altschule, Mark D.; and Russ, Evelyn: Roots of Modern Psychiatry, 835, Mar. '59.
Anderson, Camilla M.: Beyond Freud, 955, Apr. '59.
Angel, Ernest: *See* May, Rollo, jt. ed.
Argyle, Michael: The Scientific Study of Social Behavior, 576, Dec. '58.
Ausubel, David P.: Theory and Problems of Child Development, 384, Oct. '58.
Bacon, Harry E.: Ulcerative Colitis, 849, Mar. '59.
Barbara, Dominick A.: Stuttering: A Psychodynamic Approach to its Understanding and Treatment, 381, Oct. '58.
Bartlett, Harriet M.: Fifty Years of Social Work in the Medical Setting, 841, Mar. '59.
Beebe, Gilbert W.: *See* Brill, Norman Q., jt. auth.
Belknap, Ivan: Human Problems of a State Mental Hospital, 93, July '58.
Bilikiewicz, Tadeusz: Clinical Psychiatry (Psychiatria Kliniczna), 855, Mar. '59.
Bluemel, C. S.: The Riddle of Stuttering, 383, Oct. '58.
Bond, Earl D.: One Mind, Common to All, 765, Feb. '59.
Bowley, Agatha H.: The Young Handicapped Child, 283, Sept. '58.
Breuer, Joseph; and Freud, Sigmund: Studies on Hysteria, 568, Dec. '58.
Briffault, Robert; and Malinowski, Bronislaw: Marriage: Past and Present, 94, July '58.
Brill, Norman Q.; and Beebe, Gilbert W.: A Follow-Up Study of War Neuroses, 478, Nov. '58.
Bruch, Hilde: The Importance of Overweight, 188, Aug. '58.
Bruner; Brunswick; Festinger; Heider; and Muenzinger, (Eds.): Contemporary Approaches to Cognition: A Symposium Held at the University of Colorado, 854, Mar. '59.
Brunswick: *See* Bruner, jt. ed.
Burns, B. Delisle: The Mammalian Cerebral Cortex, 475, Nov. '58.
Calderone, M. S. (Ed.): Abortion in the United States, 953, Apr. '59.
Campbell, Coyne H.: Induced, Delusions. The Psychotherapy of Freudism, 567, Dec. '58.
Carpelan, Henry: Mental Disorders in Thyroidectomized Patients, 664, Jan. '59.
Caudill, William: The Psychiatric Hospital as a Small Society, 1054, May '59.
Chertok, L.: Les Méthodes Psychosomatiques d'Accouchement Sans Douleur, 858, Mar. '59.
Chisholm, Brock: Prescription for Survival, 383, Oct. '58.

Christensen, Harold T. : Marriage Analysis, 851, Mar. '59.
Clark, E. G. : *See* Leavell, H. R., jt. auth.
Clausen, John A. : Sociology and the Field of Mental Health, 93, July '58.
Cleckley, Hervey : Caricature of Love, 857, Mar. '59.
Cleugh, M. F. : The Slow Learner, 283, Sept. '58.
Clinard, Marshall B. : Sociology of Deviant Behavior, 844, Mar. '59.
Cobb, Stanley : Foundations of Neuropsychiatry (6th ed.), 953, Apr. '59.
Corsini, Raymond J. : Methods of Group Psychotherapy, 840, Mar. '59.
Costello, R. T. : *See* Jasper, H. H., jt. ed.
Cumming, Elaine ; and Cumming John : Closed Ranks, 380, Oct. '58.
Cutts, Norma E. ; and Moseley, Nicholas : Teaching the Bright and Gifted, 837, Mar. '59.
Daniels, George E. : *See* Rado, Sandor, jt. ed.
David, Henry P. ; and von Bracken, Helmut (Eds.) : Perspectives in Personality Theory, 90, July '58.
Davidson, Henry A. : Guide to Medical Writing, 186, Aug. '58.
Davis, John Eisele : Recovery From Schizophrenia. The Roland Method, 381, Oct. '58.
Despres, Marian A. : *See* Mohr, George J., jt. auth.
Diamond, Solomon : Personality and Temperament, 672, Jan. '59.
Dickel, H. A. : *See* Haugen, G. B., jt. auth.
Dixon, H. H. : *See* Haugen, G. B., jt. auth.
Dow, Robert S. ; and Moruzzi, Giuseppe : The Physiology and Pathology of the Cerebellum, 1053, May '59.
Dubitscher, Fred : Der Suicid-Unter Besonderer Berucksichitigung Versorgungsartzlicher Gesichtspunkte, 1051, May '59.
DuBois, Philip H. : Multivariate Correlational Analysis, 837, Mar. '59.
Eiseley, Loren : The Immense Journey, 475, Nov. '58.
Ellenberger, Henri F. : *See* May, Rollo, jt. ed.
Elrod, Norman : Zur Phenomenologie Der Besserung in Der Psychotherapie, 476, Nov. '58.
English, Ava Champney : *See* English, Horace B., jt. auth.
English, Horace B. ; and English, Ava Champney : A Comprehensive Dictionary of Psychological and Psychoanalytical Terms, 957, Apr. '59.
Eros, J. S. : *See* Mannheim, Karl, jt. ed.
Farberow, Norman L. : *See* Schneidman, Edwin S., jt. auth.
Federn, Paul ; and Meng, Heinrich (Eds.) : Das Psychoanalytische Volksbuch (5th ed.), 838, Mar. '59.
Festinger : *See* Bruner, jt. ed.
Firth, Raymon : We, The Tikopia (2nd ed.), 1051, May '59.
Fishbein, M. F. ; and Kennedy, Ruby Jo Reeves (Eds.) : Modern Marriage and Family Living, 853, Mar. '59.
Fox, Joseph : The Chronically Ill, 954, Apr. '59.
Frederickson, Hazel : The Child and His Welfare (2nd ed.), 857, Mar. '59.
Freud, Sigmund : *See* Breuer, Joseph, jt. auth.
Gladston, Iago (Ed.) : Freud and Contemporary Culture, 185, Aug. '58.
Gardner, D. E. M. : The Education of Young Children, 283, Sept. '58.
Gardner, G. E. : *See* Robinson, J. Franklin, jt. ed.
Gardner, Martin : Fads and Fallacies in the Name of Science, 284, Sept. '58.
Garfield, Sol L. : Introductory Clinical Psychology, 190, Aug. '58.
Garr, C. J. : *See* Krantz, J. C., jt. auth.
Gellhorn, E. : Autonomic Imbalance and the Hypothalamus, 670, Jan. '59.
Gillespie, R. D. : *See* Henderson, David, jt. auth.
Gordon, H. L. (Ed.) : The New Chemotherapy in Mental Illness, 958, Apr. '59.
Gordon, Hirsch L. (Trans.) : The Preservation of Youth. Essays on Health by Maimonides, 766, Feb. '59.
Greenblatt, Milton G. ; Levinson, Daniel J. ; and Williams, Richard H. : The Patient and the Mental Hospital, 663, Jan. '59.
Greenwood, E. D. : *See* Robinson, J. Franklin, jt. ed.
Gruhle, Hans W. : Verstehende Psychologie, 285, Sept. '58.
Hall, Calvin S. ; and Lindzey, Gardner : Theories of Personality, 90, July '58.
Hall, Jerome : Studies in Jurisprudence and Criminal Theory, 1048, May '59.
Haugen, G. B. ; Dixon, H. H. ; and Dickel, H. A. : A Therapy for Anxiety Tension Reactions, 379, Oct. '58.
Haydon, Edith M. : *See* Noyes, Arthur P., jt. auth.
Heider : *See* Bruner, jt. ed.
Henderson, David ; and Gillespie, R. D. : Textbook of Psychiatry (8th ed.), 95, July '58.

Hewitt, Richard M.: The Physician—Writer's Book, 186, Aug. '58.
Hoff, Hans (Ed.): Lehrbuch Der Psychiatrie, 286, Sept. '58.
Hollingshead, August B.; and Redlich, Frederick C.: Social Class and Mental Illness, 662, Jan. '59.
Howard, D. L.: John Howard: Prison Reformer, 852, Mar. '59.
Illing, Hans A.: New German Psychiatrica and Psychologica, 665, Jan. '59.
International Review of Criminal Policy, 841, Mar. '59.
Jacobi, Jolande: Complex Archetypus in der Psychologie C. G. Jung's, 859, Mar. '59.
Jakab, Irene: Dessins et Peintures Des Alienes, 285, Sept. '58.
Jasper, H. H.; Proctor, L. D.; Knighton, R. S.; Noshay, W. C.; and Costello, R. T. (Eds.): Reticular Formation of the Brain, 1048, May '59.
Kanner, Leo: Child Psychiatry (3rd ed.), 952, Apr. '59.
Katzenelbogen, Solomon: Analyzing Psychiatry, 1054, May '59.
Kelly, Harriet J.: *See* Macy, Icie G., jt. auth.
Kendall, P. L.: *See* Merton, R. K., jt. ed.
Kennedy, Ruby Jo Reeves: *See* Fishbein, M. F., jt. ed.
King, Stanley H.: *See* Mering, Otto von, jt. auth.
Klein, Melanie: Envy and Gratitude, 861, Mar. '59.
Kluver, Heinrich: Behavior Mechanisms in Monkeys, 575, Dec. '58
Knighton, R. S.: *See* Jasper, H. H., jt. ed.
Koestler, Arthur: Reflections on Hanging, 566, Dec. '58.
Kolb, Lawrence C.: *See* Noyes, Arthur P.
Krantz, J. C.; and Garr, C. J.: Pharmacologic Principles of Medical Practice (4th ed.), 846, Mar. '59.
Krayenbuhl, H.; and Yasargil, M. G.: Dir Vaskularen Erkrankungen Im Gebiet Der Arteria Vertebralis Und Arteria Basialis, 573, Dec. '58.
Kruse, H. D.: Integrating the Approaches to Mental Disease, 668, Jan. '59.
Kuhlen, Raymond G.: *See* Pressey, Sidney L., jt. auth.
Larsson, Tage: *See* Sjogren, Torsten, jt. auth.
Lassek, A. J.: The Human Brain, 379, Oct. '58.
Leary, Timothy: Interpersonal Diagnosis of Personality, 854, Mar. '59.
Leavell, H. R.; and Clark, E. G.: Preventive Medicine for the Doctor in his Community, 1049, May '59.
Lemkau, Paul V.: Mental Health Resources in New York City, 185, Aug. '58.
Lepley, Ray (Ed.): The Language of Value, 90, July '58.
Levinson, Daniel J.: *See* Greenblatt, Milton G., jt. ed.
Liebman, Samuel (Ed.): Understanding Your Patient, 576, Dec. '58.
Lindsay, Gardner: *See* Hall, Calvin S., jt. auth.
Ljungberg, Lennart: Hysteria. A Clinical, Prognostic and Genetic Study, 569, Dec. '58.
Lott, George M.: The Story of the Human Emotions, 1052, May '59.
Loutit, C. M., *et al.*: Clinical Psychology of Exceptional Children, 571, Dec. '58.
Lowenberg, Bert James (Ed.): Darwin, Wallace, and the Theory of Natural Selection, 1052, May '59.
Lumeij, J. L. J.: The Methods of Psychology and Psychiatry, 573, Dec. '58.
Mackay, Roland P.; Wortis, S. Bernard; and Sugar, Oscar: Year Book of Neurology, Psychiatry and Neurosurgery, 1957-1958, 476, Nov. '58.
MacNeal, Perry S.; Alpers, Bernard J.; and O'Brien, W. R.: Management of the Patient with Headache, 189, Aug. '58.
Macy, Icie G.; and Kelly, Harriet J.: Chemical Anthropology, 667, Jan. '59.
Malinowski, Bronislaw: *See* Briffault, Robert, jt. auth.
Mannheim, Karl: Systematic Sociology. Edited by Eros, J. S. and Stewart, W. A. C., 847, Mar. '59.
Martin, Harry; and Simpson, Ida Harper: Patterns of Psychiatric Nursing, 853, Mar. '59.
Masserman, Jules H.; and Moreno, J. L. (Eds.): Progress in Psychotherapy, Vol. 2, 570, Dec. '58.
May, Jacques M.: A Physician Looks at Psychiatry, 952, Apr. '59.
May, Rollo; Angel, Ernest; and Ellenberger, Henri F. (Eds.): Existence. A New Dimension in Psychiatry and Psychology, 848, Mar. '59.
McDanald, Eugene C.: Understanding Boys and Girls Who Have Problems, 845, Mar. '59.
Meares, Ainslie: The Medical Interview, 837, Mar. '59.
Meduna, L. J. (Ed.): Carbon Dioxide Therapy (2nd ed.), 764, Feb. '59.
Meng, Heinrich: *See* Federn, Paul, jt. ed.

Mering, Otto von ; and King, Stanley H. : Remotivating the Mental Patient, 671, Jan. '59.
Merton, R. K. ; Reader, G. ; and Kendall, P. L. (Eds.) : The Student Physician, 571, Dec. '58.
Meyer, Adolf : Psychobiology : A Science of Man, 184, Aug. '58.
Midelfort, C. F. : The Family in Psychotherapy, 839, Mar. '59.
Millar, Elaine C. P. : *See* Wolstenholme, G. E. W., jt. ed.
Millar, Elaine C. P. : *See* Wolstenholme, G. E. W., jt. ed.
Millar, Elaine C. P. : *See* Wolstenholme, G. E. W., jt. auth.
Mohr, George J. ; and Despres, Marian A. : The Stormy Decade : Adolescence, 850, Mar. '59.
Moody, Dwight L. : The Primary Psychiatric Syndromes, 856, Mar. '59.
Moreno, J. L. : *See* Masserman, Jules H., jt. ed.
Moreno, J. L. : First Book on Group Psychotherapy (3rd ed.), 572, Dec. '58.
Moruzzi, Giuseppe : *See* Dow, Robert S., jt. auth.
Moseley, Nicholas : *See* Cutts, Norma E., jt. auth.
Moser, Ulrich : Psychologie Der Partnerwahl, 956, Apr. '59.
Muenzinger : *See* Bruner, jt. ed.
Nachin, Claude : Investigations Préliminaries à une Etude Scientifique de L'Alcoolism Psychiatric, 843, Mar. '59.
Nacht, N. (Ed.) : La Psychoanalyse d'Aujourd'Hui, 955, Apr. '59.
Neustatter, W. L. : Psychological Disorder and Crime, 569, Dec. '58.
Noshay, W. C. : *See* Jasper, H. H., jt. ed.
Noyes, Arthur P. ; and Kolb, Lawrence C. : Modern Clinical Psychiatry (5th ed.), 851, Mar. '59.
Noyes, Arthur P. ; Haydon, Edith M. ; and van Sickel, Mildred : Textbook of Psychiatric Nursing (5th ed.), 574, Dec. '58.
Nunberg, Herman : Principles of Psychoanalysis, 187, Aug. '58.
Nymen, G. Eberhard : Variations in Personality, 92, July '58.
O'Brien, W. R. : *See* MacNeal, Perry S., jt. auth.
O'Connor, Ceceliar M. : *See* Wolstenholme, G. E. W., jt. ed.
Olson, Olof : *See* Alstrom, Carl Henry, jt. auth.
Palmer, Harold : Psychopathic Personalities, 91, July '58.
Pankow, Gisela : Dynamische Strukturierung in der Psychose, 864, Mar. '59.
Patterson, C. H. : Counseling the Emotionally Disturbed, 850, Mar. '59.
Piaget, J. : Logic and Psychology, 844, Mar. '59.
Piddington, Ralph : An Introduction to Social Anthropology, 574, Dec. '58.
Piotrowski, Zygmont A. : Perceptanalysis, 381, Oct. '58.
Polk Papers of '57, 91, July '58.
Pratt, J. G. : *See* Rhine, J. B., jt. auth.
Pressey, Sidney L. ; and Kuglen, Raymond G. : Psychological Development Through the Life Span, 667, Jan. '59.
Proctor, L. D. : *See* Jasper, H. H., jt. ed.
Putnam, Tracy J. : Epilepsy. What it is ; What to do About it, 765, Feb. '59.
Rado, Sandor ; and Daniels, George E. : Changing Concepts of Psychoanalytic Medicine, 475, Nov. '58.
Ralston, Bruce L. : *See* Ajmone-Marsan, Cosimo, jt. auth.
Reader, G. : *See* Merton, R. K., jt. ed.
Redlich, Frederick C. : *See* Hollingshead, August B., jt. auth.
Reed, Charles F. ; Alexander, Irving E. ; and Tomkins, Silvan S. (Eds.) : Psychopathology : A Source Book, 957, Apr. '59.
Rhine, J. B. ; and Pratt, J. G. : Parapsychology, 842, Mar. '59.
Rickett, Allyn and Adele : Prisoners of Liberation, 282, Sept. '58.
Richter, Derek : Schizophrenia—Somatic Aspects, 185, Aug. '58.
Rifkin, Alfred D. (Ed.) : Schizophrenia in Psychoanalytic Office Practice, 856, Mar. '59.
Riishede, John : Cerebral Apoplexy, 846, Mar. '59.
Robinson, J. Franklin ; Gardner, G. E. ; and Greenwood, E. D. : Psychiatric Inpatient Treatment of Children, 669, Jan. '59.
Rohde, Amada R. : The Sentence Completion Method, 572, Dec. '58.
Roman, Melvin : Reaching Delinquents Through Reading, 1053, May '59.
Ruesch, Jurgen : Disturbed Communication, 91, July '58.
Ruggieri, Bartholomew A. : *See* Schwarz, Berthold Eric.
Sargent, S. Stansfeld ; and Williamson, Robert C. : Social Psychology (2nd ed.), 1054, May '59.
Schaffner, Bertram (Ed.) : Group Processes : Transactions of the Third Conference, 954, Apr. '59.
Schlaegel, T. F. : Psychosomatic Ophthalmology, 957, Apr. '59.
Schneidman, Edwin S. ; and Farberow, Norman L. : Clues to Suicide, 862, Mar. '59.

Schwarz, Berthold Eric ; and Ruggieri, Bartholomew A. : Parent-Child Tension, 848, Mar. '59.
Scott, John Paul : Animal Behavior, 766, Feb. '59.
Shock, Nathan W. : A Classified Bibliography of Gerontology and Geriatrics, 92, July '58.
Simpson, Ida Harper : *See* Martin, Harry, jt. auth.
Sjogren, Torsten ; and Larsson, Tage : Obligophrenia in Combination with Congenital Ichthyosis and Spastic Disorders, 851, Mar. '59.
Skottowe, Ian : A Mental Health Handbook, 574, Dec. '58.
Spiegel, E. A. (Ed.) : Progress in Neurology and Psychiatry, Vol. 12, 663, Jan. '59.
Spinoza, Baruch : The Road to Inner Freedom, 188, Aug. '58.
Spiro, Melford E. : Children of the Kibbutz, 853, Mar. '59.
Stewart, W. A. C. : *See* Mannheim, Karl, jt. ed.
Stott, D. H. : Unsettled Children and Their Families, 380, Oct. '58.
Sugar, Oscar : *See* Mackay, Roland P., jt. ed.
Thorndike, Lynn : A History of Magic and Experimental Science, 1052, May '59.
Tomkins, Silvan S. : *See* Reed, Charles F., jt. ed.
Tracy, John Evarts : The Doctor as Witness, 570, Dec. '58.
Van Sickel, Mildred : *See* Noyes, Arthur P., jt. auth.
Von Bracken, Helmut : *See* David, Henry P., jt. auth.
Von Kopsch, Prof. Dr. Fr. : Nomina Anatomica, 860, Mar. '59.
Waelsch, Heinrich (Ed.) : Ultrastructure and Cellular Chemistry of Neural Tissue, 864, Mar. '59.
Wallen, Richard W. : Clinical Psychology, 94, July '58.
Wallerstein, Robert S. : Hospital Treatment of Alcoholism, 862, Mar. '59.
Wechsler, David : The Measurement and Appraisal of Adult Intelligence (4th ed.), 582, Mar. '59.
Wechsler, I. S. : A Textbook of Clinical Neurology (8th ed.), 836, Mar. '59.
Weiss, Edward ; and English, O. Spurgeon : Psychosomatic Medicine, 666, Jan. '59.
Werre, P. F. : The Relationship between Electroencephalographic and Psychological Data in Normal Adults, 860, Mar. '59.
Wikler, Abraham : The Relation of Psychiatry to Pharmacology, 838, Mar. '59.
Williams Richard H. : *See* Greenblatt, Milton G., jt. ed.
Williamson, Robert C. : *See* Sargent, S. Stansfeld, jt. auth.
Winnicott, D. W. : Mother and Child, 670, Jan. '59.
Winnicott, D. W. : The Child and the Outside World, 575, Dec. '58.
Wolstenholme, G. E. W. ; and Millar, Elaine C. P. (Eds.) : Hormones in Blood, 958, Apr. '59.
Wolstenholme, G. E. W. ; and O'Connor, Cecilia M. (Eds.) : The Chemistry and Biology of Purines, 570, Dec. '58.
Wolstenholme, G. E. W. ; and Millar, Elaine C. P. (Eds.) : Regulation and Mode of Action of Thyroid Hormones, 567, Dec. '58.
Wolstenholme, G. E. W. ; and Millar, Elaine C. P. (Eds.) : Paper Electrophoresis, 284, Sept. '58.
Woods, Grace E. : Cerebral Palsy in Childhood, 845, Mar. '59.
Wortis, S. Bernard : *See* Mackay, Roland P., jt. ed.
Yasargil, M. G. : *See* Krayenbuhl, H., jt. auth.
Brain Discases and Damage : *See* Neuropathology.

C

Cerebrospinal Fluid : A Rapid Test for CSF Protein Determination (C.N.) ; Erwin M. Jacobs, 816, Mar. '59.
Chemotherapy : *See* Psychopharmacology.
Child Psychiatry :
Characteristics of Thought Disturbances as Related to EEG Findings in Children and Adolescents ; Margaret A. Kennard, 911, Apr. '59.
Child Psychiatry and Mental Deficiency (Review of Psychiatric Progress, 1958) ; Leo Kanner, 608, Jan. '59.
A Clinical Study of Gilles De La Tourette's Disease (Maladie Des Tics) in Children ; Leon Eisenberg, 715, Feb. '59.
Treatment of Psychoses in Early Childhood with Triiodothyronine (P.R.) ; 166, Aug. '58.
Community Mental Health Needs : The Psychiatric Emergency Clinic : A Flexible Way of Meeting ; M. Donald Coleman, 980, Mar. '59.
Convulsive Disorders : Epilepsy (Review of Psychiatric Progress, 1958) ; Walter J. Friedlander, 623, Jan. '59.

D

Day Hospitals :
Day Hospitals for Severely Disturbed Schizophrenic Children ; Alfred M. Freedman, 893, Apr. '59.
Intensive Short-Term Therapy in a Day Care Facility For Control of Recurrent Psychotic Symptoms (C.N.) ; Else B. Kris, 1027, May '59.
New Concepts of Psychiatric Care with Special Reference to the Day Hospital ; Charles E. Goshen, 808, Mar. '59.
Doctor-Patient Relationship and its Historical Context ; Thomas S. Szasz, 522, Dec. '58.
Drugs and Drug Therapy : *See* Psychopharmacology.
Dunton, William Rush, Jr. : Our Senior Editor (Ed.) ; 264, Sept. '58.

E

Electrocardiography as a Routine Admission Procedure in a Large Neuropsychiatric Hospital : An Evaluation (C.N.) ; Philip H. Ross, 1034, May '59.
EEG :
Characteristics of Thought Disturbances as Related to Electroencephalographic Findings in Children and Adolescents ; Margaret A. Kennard, 911, Apr. '59.
Correlation of Bilateral Occipital Flow Activity in the Human EEG with Certain Disorders of Behavior ; Robert Cohn, 44, July '58.
Electroencephalography (Review of Psychiatric Progress, 1958) ; W. T. Liberson, 593, Jan. '59.
Sedation in EEG (C.N.) ; C. H. Carter, 815, Mar. '59.
Electroshock Therapy : *See* Shock Therapy.
Encephalitis : Post-Encephalitic Behavior Disorder—A Forgotten Entity : A Report of 100 Cases ; Sol Levy, 1062, June '59.
Endocrinology : Neuropathology, Endocrinology and Biochemistry (Review of Psychiatric Progress, 1958) ; O. R. Langworthy, 589, Jan. '59.
Epilepsy : *See* Convulsive Disorders.
Etiology : The Methodological Importance of Distinguishing Two Separate Causal Chains Which Together Produce the Clinical Picture of Psychosis ; Otto F. Ehrentheil, 220, Sept. '58.

F

Family Relations :
Family Care and Outpatient Psychiatry (Review of Psychiatric Progress, 1958) ; Walter E. Barton, 642, Jan. '59.
Neurotic Interaction and Patterns of Pseudo-Heredity in the Family ; Jan Ehrenwald, 134, Aug. '58.
Fear, Hostility, Reality ; Eugen Kahn, 1002, May '59.
Fertility Control : The Influence of, Upon Psychiatric Illness ; Alan F. Guttmacher, 683, Feb. '59.
Forensic Psychiatry :
A Criminologist Looks at Privilege ; Austin MacCormick, 1068, June '59.
The Death Penalty (Ed.) ; Stanley C. Cobb, 559, Dec. '58.
Forensic Psychiatry (Review of Psychiatric Progress, 1958) ; Winfred Overholser, 645, Jan. '59.
The Problem of Privilege : Historical and Juridical Sidelights ; Henry Root Stern, Jr., 1071, June '59.
A Psychiatric Study of a Mass Murderer ; James A. V. Galvin, 1057, June '59.
Role of the Psychiatrist in Criminal Trials ; Joseph B. Cumming, 491, Dec. '58.
Teaching of Forensic Psychiatry in American and Canadian Medical Centers ; Robert J. Stoller, 150, Aug. '58.

G

General Hospitals, Psychiatry In : Problems in Establishing and Maintaining Psychiatric Units in General Hospitals ; A. E. Bennett, 974, May '59.
Genetics : *See* Heredity and Eugenics.
Geriatrics and Old Age Problems :
Alcoholism and Geriatrics (Review of Psychiatric Progress, 1958) ; Karl M. Bowman, 619, Jan. '59.
Hazards in Tranquilizing the Elderly Patient (C.N.) ; Genevieve A. Arneson, 163, Aug. '58.
Psychiatric Response of Geriatric-Psychiatric Patients to Mellaril (TP-21 Sandoz) (C.N.) ; Leopold Judah, 1118, June '59.
Senescent Memory Decline and Senile Amnestic Syndrome (C.N.) ; V. A. Kral, 361, Oct. '58.

H

Heredity and Eugenics (Review of Psychiatric Progress, 1958) ; Franz J. Kallmann, 586, Jan. '59.
Histamines : Releasable Histamine Levels and Histamine Tolerance in Tissues of 291 Psychotic Patients ; Louise H. Jodrey, 801, Mar. '59.
Historical :
Non-Restraint (H.N.) ; Naomi Raskin, 471, Nov. '58.
Non-Restraint at Kalamazoo State Hospital (Corr.) ; 557, Dec. '58.

A Pre-Freudian Complex-Theory (H.N.) ; Ernest Harms, 751, Feb. '59.
Homosexuality : An Approach to the Problem of, in the Military Service ; Louis Jolyon West, 392, Nov. '58.
Hypersomnia, Psychogenic ; Norman P. Goldstein, 922, Apr. '59.
Hyperthyroidism : Acute Transitory Psychotic Reaction Manifested After Radioactive Iodine Treatment for (C.R.) ; Kurt Witton, 746, Feb. '59.

I

Ictal Affect ; David Daly, 97, Aug. '58.
Immigration : The American Melting Pot : Its Meaning to Us ; J. M. Radzinski, 873, Apr. '59.
Indonesia : The Social Conditions of Psychotherapy in ; R. Slamet Iman Santoso, 798, Mar. '59.
Industrial Psychiatry (Review of Psychiatric Progress, 1958) ; Ralph T. Collins, 630, Jan. '59.
In Memoriam :
Charles Englander, 480, Nov. '58.
Douglas M. Kelley, 96, July '58.
Merril Moore, 191, Aug. '58.
Manfred Sakel, 287, Sept. '58.
Edward A. Strecker, 959, Apr. '59.
Harry J. Worthing, 767, Feb. '59.
Edwin Garvin Zabriskie, 1055, May '59.
Insulin Coma Treatment :
International Conference on the Insulin Treatment in Psychiatry (Ed.) ; 1127, June '59.
Successful Termination of Prolonged Insulin Coma of Twenty Days With One Year Follow-Up (C.R.) ; James F. Suess, 745, Feb. '59.
Use of Glucagon in the Termination of Therapeutic Insulin Coma (C.N.) ; Manfred Braun, 814, Mar. '59.
Interdisciplinary : The Social-Legal Counselling Board : An Experiment in the Interdisciplinary Approach Involving Law, Psychiatry, and Social Work ; John Donnelly, 1021, Mar. '59.
International Psychiatry :
Committee on International Relations, 1958 (Ed.) ; Iago Galdston, 472, Nov. '58.
International Conference on the Insulin Treatment in Psychiatry (Ed.) ; 1127, June '59.
Psychiatry in Asia and the Middle East ; Henry P. Laughlin, 193, Sept. '58.
World Federation for Mental Health Annual Meeting (Ed.) ; George S. Stevenson, 828, Mar. '59.

J

Janet, Pierre M. F. (H.N.) ; Ernest Harms, 1036, May '59.
Jung Annotates Modern Art (Ed.) ; 177, Aug. '58.

K

Kinsey Imports : Verdict of the ; Karl M. Bowman, 126, Aug. '58.

L

Leucotomy : *See* Psychosurgery.
Lobotomy : *See* Psychosurgery.
Lysergic Acid Experiences : Subjective Reports of in a Context of Psychological Test Performance ; Sidney Cohen, 30, July '58.

M

Manic-Depressive Personality : On the Dynamics of ; Robert W. Gibson, 1101, June '59.
McNaughten Rule : *See also* Forensic Psychiatry.
California Assembly Bill 437 : Legal Insanity (Ed.) ; Reginald S. Rood, 1038, May '59.
The Nonpsychotic Offender and the State Hospital ; Reginald S. Rood, 512, Dec. '58.
Temporary Insanity as a Defense ; Leo L. Orenstein, 121, Aug. '58.
Mental Deficiency and Child Psychiatry (Review of Psychiatric Progress, 1958) ; Leo Kanner, 608, Jan. '59.
Mental Health :
Mental Health in Education (Review of Psychiatric Progress, 1958) ; W. Carson Ryan, 628, Jan. '59.
States Act to Improve Their Mental Health Programs (Ed.) ; R. H. Felix, 262, Sept. '58.
Mental Hospitals : *See also* Administrative Psychiatry.
Changing Roles of Hospitals for Psychiatric Treatment (Ed.) ; Lauren H. Smith, 371, Oct. '58.
Mental Hospital Beds—Present and Future Needs, New York State Service (Ed.) ; Paul H. Hoch, 175, Aug. '58.
Premature Discharges From Public Mental Hospitals (Corr.) ; 259, Sept. '58.
Research in State Mental Hospitals ; Paul H. Hoch, 289, Oct. '58.
A Study in Non-Restraint ; M. G. Jacoby, 114, Aug. '58.
Mescaline :
Studies on Mescaline, VIII : Psychodynamic

Observations ; Herman C. B. Denber, 239, Sept. '58.
Studies on Mescaline, X : Psychological Changes Before and After Mescaline as Measured by the MMPI (C.N.) ; Herman C. B. Denber, 546, Dec. '58.

Military Psychiatry :
An Approach to the Problem of Homosexuality in the Military Service ; Louis Jolyon West, 392, Nov. '58.
Military Phychiatry (Review of Psychiatric Progress, 1958) ; Joseph S. Skobba, 649, Jan. '59.
Psychiatric Aspects of Training for Honorable Survival as a Prisoner of War ; Louis Jolyon West, 329, Oct. '58.
Some Antecedent Factors in Army Prisoners ; Adolf Haas, 143, Aug. '58.

Mind, Matter and Brain ; Nathan Roth, 62, July '58.
Model Psychoses : Their History, Relevancy and Limitations (Adolf Meyer Research Lecture) ; W. Mayer-Gross, 673, Feb. '59.
Murder : Psychiatric Study of a Mass Murderer ; James A. V. Galvin, 1057, June '59.
Music Therapy For the Mentally Retarded (C.N.) ; Frederick Edward Kratter, 737, Feb. '59.

N

Narco-Stimulation (C.N.) ; Albert A. Laverne, 738, Feb. '59.
Neurology, Clinical : (Review of Psychiatric Progress, 1958) ; William H. Timberlake, 611, Jan. '59.

Neuropathology :
Mental Deterioration and Occlusion of the Internal Carotid Arteries in the Neck (C.R.) ; Clifford L. Williams, 256, Sept. '58.
Mental Symptoms in Cases of Tumor of Temporal Lobe ; Paul Gal, 160, Aug. '58.
Neuropathology, Endocrinology and Biochemistry (Review of Psychiatric Progress, 1958) ; O. R. Langworthy, 589, Jan. '59.

Neurophysiology : Brain Mechanisms and Psychotherapy ; Bernice T. Eiduson, 203, Sept. '58.

Nuclear Radiation :
Effects of Nuclear Radiation (Ed.) ; 658, Jan. '59.
Effects of Nuclear Radiation (Corr.) ; 1042, May '59.

Nursing, Psychiatric : (Review of Psychiatric Progress, 1958) ; Lavonne M. Frey, 633, Jan. '59.

O

Occupational Therapy :
Letter-Writing in a Mental Hospital ; Robert Sommer, 514, Dec. '58.
Patient Industry and the Worker's Attitudes Towards Their Jobs (C.N.) ; B. J. Bolin, 246, Sept. '58.
Psychiatric Occupational Therapy : Some Aspects of Roles and Functions ; Madelaine Ellis, 318, Oct. '58.
Rehabilitation and Occupational Therapy (Review of Psychiatric Progress, 1958) ; Franklin S. DuBois, 635, Jan. '59.

Open Door :
Open Door Policy on an Adolescent Service in a Psychiatric Hospital ; James M. Toolan, 790, Mar. '50.
Open Ward Policy at St. Lawrence State Hospital ; Herman B. Snow, 779, Mar. '59.
Patient Reactions to the "Open Door" ; Nathan Wisebord, 518, Dec. '58.

P

Parental Deprivation : Studies of Parental Deprivation in Psychiatric Patients ; Ian Gregory, 432, Nov. '58. Correction (Corr.) ; 755, Feb. '59.
Pastoral-Psychiatric Workshops : The St. John's Mental Health Institute ; Hymann Lippman, 529, Dec. '58.
Patient Government (A.N.) ; M. G. Jacoby, 943, Apr. '59.
Patterns of Psychiatric Progress ; John MacIver, 692, Feb. '59.
Personality : Multiple Self Concepts as Effected by Mood States ; A. Z. Orzeck, 349, Oct. '58.
Pharmacotherapy : *See* Psychopharmacology.
Philadelphia Metropolitan Psychiatry in 1959 ; Earl D. Bond, 929, Apr. '59.
Phrenology : The Influence of, on Early American Psychiatric Thought ; Eric T. Carlson, 535, Dec. '58.
Physiological Treatment (Review of Psychiatric Progress, 1958) ; Joseph Wortis, 599, Jan. '59.
Placebo Response : The Prognostic Value of (C.N.) ; Leon D. Hankoff, 549, Dec. '58.
Post-Partum Mental Illness : Characteristics of ; John J. Madden, 18, July '58.

Pound, Ezra :
Politics and Mental Health : Some Remarks Apropos of the Case of Mr. Ezra Pound ; Thomas S. Szasz, 508, Dec. '58.
Pound, Politics and Mental Health (Corr.) ; 1040, May '59.

Premenstrual Tension : Medical, Psychiatric and Legal Aspects of ; Irwin N. Perr, 211, Sept. '58.

Presidential Address : The American Psychiatric Association in Relation to American Psychiatry ; Harry C. Solomon, 1, July '58.

President's Page ; 373, Oct. '58.

Psychiatric Education :

Facilities For Psychiatric Education : Survey of Psychiatric Departments in Medical Schools ; Kenneth E. Appel, 698, Feb. '59.

Growth of Psychiatrists During and After Residency Training : An Objective Evaluation ; Herbert C. Modlin, 1081, June '59.

A Program for the Psychiatric Training of General Practitioners While Utilizing Their Offices as an Outpatient Facility ; Jackson A. Smith, 539, Dec. '58.

Psychiatric Education (Review of Psychiatric Progress, 1958) ; Franklin G. Ebaugh, 650, Jan. '59.

Psychiatric Training Programs For General Practitioners (Ed.) ; Leo H. Bartemeier, 946, Apr. '59.

A Serious and Little-Recognized Deficit in Post-War Psychiatric Residency Training ; Robert T. Morse, 899, Apr. '59.

The Teaching of Forensic Psychiatry in American and Canadian Medical Centers ; Robert J. Stoller, 150, Aug. '58.

Psychiatric Emergency Clinic : A Flexible Way of Meeting Community Mental Health Needs ; M. Donald Coleman, 980, Mar. '59.

Psychoanalysis :

An Explanation For Transference Cure : Its Occurrence in Psychonanlysis and Psychotherapy ; Lawrence C. Kolb, 414, Nov. '58.

Treatment Results of Psychoanalysis (Corr.) ; 754, Feb. '59.

Psychology :

Clinical Psychology (Review of Psychiatric Progress, 1958) ; Frederick Wyatt, 596, Jan. '59.

Some Considerations Regarding Basic Mechanisms of Positive and Negative Types of Motivations ; John C. Lilly, 498, Dec. '58.

Toward the Effective Use of the Psychological Consultation ; Robert G. Harlow, 228, Sept. '58.

Psychological Tests :

Diagnostic and Personality Testing in Clinical Psychology ; R. W. Payne, 25, July '58.

Psychiatric Evaluation of "Normal Control" Volunteers ; William Pollin, 129, Aug. '58.

Subjective Reports of Lysergic Acid Experiences in a Context of Psychological Test Performance ; Sidney Cohen, 30, July '58.

Studies on Mescaline X : Psychological Changes Before and After Mescaline as Measured by the MMPI (C.N.) ; Herman C. B. Denber, 546, Dec. '58.

Psychopharmacology :

General Articles :

Anxiety-Depressions and Pharmacotherapy-Correlations (C.N.) ; Jerome M. Schneck, 77, July '58.

Appraisal of the "Tranquilizers" and Their Influence on Other Somatic Treatments in Psychiatry ; Lothar B. Kalinowsky, 294, Oct. '58.

A Clinical Note on Drug Induced Depression (C.N.) ; Carl H. Fellner, 547, Dec. '58.

Drug Induced Tranquilization vs. Drug Induced Agitation (C.N.) ; Hilda Muszynski, 1029, May '59.

Drugs—Single or Multiple Daily Dosage ? (C.N.) ; Philip Haden, 932, Apr. '59.

The Evaluation and Testing of Psychopharmaceutic Drugs ; Alan F. Leveton, 232, Sept. '58.

Hazards in Tranquilizing the Elderly Patient (C.N.) ; Genevieve A. Arneson, 163, Aug. 58.

Induced Depressions : Pharmacologic Effects (C.N.) ; Robert L. Faucett, 247, Sept. '58.

Observations on the Comparative Effects of Tranquilizers on Patients Previously Treated with Prochlorperazine (C.N.) ; Werner M. Mendel, 466, Nov. '58.

Pre-Admission Drug Treatment of State Psychiatric Hospital Patients (C.N.) ; Albert A. Kurland, 1028, May '59.

Some Drugs Used in the Treatment of Mental Disorders (Ed.) ; H. E. Himwich, 756, Feb. '59.

The Symptomatic Relief of Anxiety with Meprobamate, Phenobarbital and Placebo ; E. H. Uhlenhuth, 905, Apr. '59.

Therapeutic Implications of Differential Effects of New Phenothiazine Compounds ; F. A. Freyhan, 577, Jan. '59.

Tranquilizers and Energizers (C.N.) ; Joseph A. Barsa, 543, Dec. '58.

Withdrawal From Neuroleptic Drugs (C.N.) ; George W. Brooks, 931, Apr. '59.

Reports on Individual Drugs :

Acepromazine (Plegicil) : A Preliminary Evaluation of (C.N.) ; John T. Ferguson, 548, Dec. '58.

Acetazolamide (Diamox) : Failure of Convulsive Response in Electroconvulsive Therapy in a Patient Treated with (C.R.) ; J. T. Ungerleider, 81, July '58.

Chlorpromazine :
Spinal Fluid Changes During Chlorpromazine Therapy (P.R.) ; James K. Smith, 167, Aug. '58.
Use of Chlorpromazine Combined with Meprobamate (C.N.) ; Joseph A. Barsa, 79, July '58.
The Validity of the Forrest Reagent Test for the Detection of Chlorpromazine or other Phenothiazines in the Urine (C.N.) ; Benjamin Pollack, 76, July '58.
Cycloserine as an Antidepressant Agent (C.N.) ; George E. Crane, 1025, May '59.
Deaner (Deanol) :
Clinical Uses of Deanol (Deaner) : A New Type of Psychotropic Drug (C.N.) ; John D. Moriarty and John C. Mebane, 941, Apr. '59.
Deaner : An Adjunct for Treatment of Schizoid and Schizophrenic Patients (C.N.) ; Nina Toll, 366, Oct. '58.
Deprol : The use of in Chronic Psychotic Patients (C.N.) ; Veronica M. Pennington, 250, Sept. '58.
Diphenhydramine Hydrochloride : On Special Uses of, in the Somatic Therapy Ward of a Psychiatric Hospital (C.N.) ; Herbert Freed, 359, Oct. '58.
Glucagon : The Use of in the Termination of Therapeutic Insulin Coma (C.N.) ; Manfred Braun and Milford Parker, 814, Mar. '59.
Glutethimide (Doriden) :
Addiction to Glutethimide (C.R.) ; Arnold Sadwin, 469, Nov. '58.
Addiction to Glutethimide (C.R.) ; George A. Rogers, 551, Dec. '58.
Harmonyl : An Evaluation of the Efficacy of, in Psychiatric Treatment (C.N.) ; David Freedman, 248, Sept. '58.
Indoklon Combined With Pentothal and Anectine (Corr.) ; 1041, May '59.
Imipramine (Tofranil) :
Imipramine : A Potent New Anti-Depressant Compound (C.N.) ; H. Azima, 245, Sept. '58.
Preliminary Report on Imipramine (Tofranil) (C.N.) ; Paul E. Feldman, 1117, June '59.
The Treatment of Depressive States With G 22355 (Imipramine Hydrochloride) ; Roland Kuhn, 459, Nov. '58.
Iproniazid (Marsilid) :
Iproniazid Chemotherapy in Melancholia ; Theodore R. Robie, 402, Nov. '58.
JB-516 and Iproniazid (Marsilid) (P.R.) ; Frederick Lemere, 554, Dec. '58.
Marsilid (Iproniazid) and Electroshock ; Alfred Gallinek, 1011, Mar. '59.
A Preliminary Report on Iproniazid (C.N.) ; Elwyn C. Cook, 75, July '58.
Promazine Iproniazid : A Brief Report (C.N.) ; Douglas Vann, 824, Mar. '59.
A Study of Iproniazid Treatment in Chronic Akinetic Patients (C.N.) ; John A. Belisle, 544, Dec. '58.
Liothyronine Treatment of Adult Cretin With Psychosis (C.R.) ; John L. Simon, 552, Dec. '58.
Mellaril (TP-21) :
Psychiatric Response of Geriatric-Psychiatric Patients to Mellaril (TP-21) (C.N.) ; Leopold Judah, 1118, June '59.
TP-21, A New Phenothiazine (C.N.) ; Sidney Cohen, 358, Oct. '58.
Mepazine : Considerations of the Utility of, in a Therapeutic Milieu ; F. H. Davis, 65, July '58.
Meprobamate :
An Evaluation of Meprobamate in Opiate Withdrawal (C.N.) ; Arnold H. Zucker, 254, Sept. '58.
The Usefulness and Effectiveness of Equanil in Children (C.N.) ; Kurt C. Rawitt, 1120, June '59.
Methoxydone (AHR-233) : A Note on (C.N.) ; Herman C. B. Denber, 360, Oct. '58.
Methoxypromazine : A New Phenothiazine (C.N) ; E. Gosline, 939, Apr. '59.
Methyl-Phenidylacetate (Ritalin) and Reserpine : Action of, in Behavior Disorders in Children and Adults ; Frederick T. Zimmerman, 323, Oct. '58.
Monosodium Glutamate (L-Glutavite) : A Clinical Trial of, on Hospitalized Elderly Male Psychotic Patients (C.N.) ; Robert L. Spitzer, 936, Apr. '59.
Nor-Eth-Adrolone (Nilevar) :
The Clinical Effect of Nor-eth-adrolone (Nilevar) on Incontinent Mental Patients (C.N.) ; George Vlavianos, 164, Aug. '58.
Treatment of Bladder and Bowel Incontinence in Elderly Mental Patients With Nor-Eth-Androlone (Nilevar) (C.N.) ; Maurice Vaisberg, 938, Apr. '59.

Pacatal-Treated Patients : A Two Year Fate Study of (C.N.) ; Paul E. Feldman, 736, Feb. '59.
Phenyltoloxamine : Psycho-Physiologic Evaluation of a New Phrenotropic Agent : A Comparative Study with Reserpine and Placebo ; Alberto DiMascio, 301, Oct. '58.
Proclorperazine (Compazine) :
Clinical Efficacy of Proclorperazine (Compazine) in Mental Illness (C.N.) ; F. Regis Riesenman, 1032, May '59.
Comparison of Proclorperazine and Chlorpromazine in Hospitalized Chronic Schizophrenics (C.N.) ; Peter D. King, 1026, May '59.
Proclorperazine in the Treatment of the Schizophrenias (C.N.) ; Veronica M. Pennington, 820, Mar. '59.
Promazine :
EEG Changes with Promazine (C.N.) ; R. E. Reiner, 742, Feb. '59.
Promazine-Iproniazid : A Brief Report (C.N.) ; Douglas Vann, 824, Mar. '59.
SKF 5883 : Clinical Experiences with a New Phenothiazine (C.N.) ; Herman C. B. Denber, 1116, June '59.
Trifluprazine (Vesprin) :
A Comparison of Trifluprazine (Vesprin), Chlorpromazine, and Placebo in 85 Chronic Patients (C.N.) ; Jackson A. Smith, 253, Sept. '58.
Clinical Results of Trifluprazine (Vesprin) in 132 Psychotic Patients (C.N.) ; Veronica M. Pennington, 740, Feb. '59.
Preliminary Report on Trifluprazine (Vesprin) (C.N.) ; Sanford H. Meyers, 743, Feb. '59.
A Rapid Urine Color Test For Trifluprazine (Vesprin) (C.N.) ; Fred M. Forrest, 1114, June '59.
Trifluoperazine :
Experience with Trifluoperazine in 110 Female Schizophrenics (C.N.) ; Walter Kruse, 1031, May '59.
Preliminary Observations on Trifluoperazine in Schizophrenia (C.N.) ; Eliere J. Tolan, 935, Apr. '59.
Trifluoperazine in the Treatment of Chronic Schizophrenics (C.N.) ; Joseph A. Barsa, 812, Mar. '59.
Trifluoperazine in the Treatment of Psychotic Patients (C.N.) ; L. H. Rudy, 364, Oct. '58.
Use of Trifluoperazine in Chronic Negro Schizophrenics (C.N.) ; Marshall C. Sexton, 821, Mar. '59.
Triiodothyronine : Treatment of Psychoses in Early Childhood With (P.R.) ; Albert C. Sherwin, 166, Aug. '58.
Trilafon in the Treatment of Chronically Psychotic Hospitalized Patients ; Harry Cohen, 452, Nov. '58.
Side Effects :
Acute Toxic Hypertension Due to Triflupromazine (C.R.) ; Harry F. Darling, 1123, June '59.
Atropine-Like Poisoning Due to Tranquilizing Agents ; Peter R. Mahrer, 337, Oct. '58.
Blood Dyscrasias Due to Phenothiazine Derivatives : Report of Four Cases (C.R.) ; Magnus C. Petersen, 257, Sept. '58.
Catatonic-Like States Following Phenothiazine Therapy (C.N.) ; Rupert H. May, 1119, June '59.
Miosis Following Administration of Chlorpromazine and Related Agents (C.N.) ; Saran Jonas, 817, Mar. '59.
Prolonged Hypotension Due to Chlorpromazine (C.R.) ; W. J. Stanley, 1124, June '59.
Fatalities :
Death Due to Massive Overdose of Meprobamate (C.R.) ; Isadore Kamin, 1123, June '59.
Fatalities in Patients Receiving Chlorpromazine and Reserpine During 1956-1957 at Pilgrim State Hospital, 154, Aug. '58.
Psychophysiologic : Clinical Confirmation of Heistad's Predictions (C.N.) ; R. V. Edwards, 363, Oct. '58.
Psychosomatic :
Current Theoretical Concepts in Psychosomatic Medicine : Harold I. Kaplan, 1091, June '59.
Some Conceptual Tendencies in the Psychosomatic Movement ; Bernard Bandler, 36, July '58.
Psychosurgery : (Review of Psychiatric Progress, 1958) ; Walter Freeman, 606, Jan. '59.
Psychotherapy :
Brain Mechanisms and Psychotherapy ; Bernice T. Eiduson, 203, Sept. '58.
Clinical Psychiatry and Psychotherapy (Review of Psychiatric Progress, 1958) ; Paul H. Hoch, 654, Jan. '59.
Control of Behavior as a Crucial Factor in Intensive Psychiatric Treatment in an all Adolescent Ward ; Willard J. Hendrickson, 969, May '59.

Patient's Expectancies and Relearning as Factors Determining Improvement in Psychotherapy ; Jerome D. Frank, 961, May '59.
Permissiveness—Its Definition, Usefulness and Application in Psychotherapy ; Jacob E. Finesinger, 992, Mar. '59.
The Semantics of Psychotherapy ; Henry A. Davidson, 410, Nov. '58.
The Social Conditions of Psychotherapy in Indonesia ; R. Slamet Iman Santoso, 798, Mar. '59.
Teaching the Principles of Ambulant Psychotherapy ; C. H. Hardin Branch, 887, Apr. '59.

R

Regional Psychiatry : Philadelphia Metropolitan Psychiatry in 1959 ; Earl D. Bond, 929, Apr. '59.
Rehabilitation : *See* Occupational Therapy.
Research :
Psychiatric Research in Space Medicine ; George E. Ruff, 793, Mar. '59.
Research in State Mental Hospitals ; Paul H. Hoch, 289, Oct. '58.
Religious Sisters : The Incidence of Hospitalized Mental Illness Among, in the U. S. ; Sister M. William Kelley, 72, July '58.
Reviews of the Literature : (Review of Psychiatric Progress, 1958) ; 586-657, Jan. '59.

S

Schizophrenia :
Bilateral Adrenalectomy in Chronic Schizophrenic Patients : 6 Years After ; Nathaniel S. Apter, 55, July '58.
Brain Damage, Mental Retardation and Childhood Schizophrenia ; Max Pollack, 422, Nov. '58.
Childhood Patterns Predictive of Adult Schizophrenia : A 30-Year Follow-Up Study ; Patricia O'Neal, 385, Nov. '58.
Childhood Schizophrenia (Corr.) ; 368, Oct. '58.
Comparison of Effects of Normal and Schizophrenic Serum on Motor Performance in Rats (C.N.) ; Lila Ghent, 465, Nov. '58.
Comparison of Proclorperazine and Chlorpromazine in Hospitalized Chronic Schizophrenics (C.N.) ; Peter D. King, 1026, May '59.
Day Hospitals for Severely Disturbed Schizophrenic Children ; Alfred M. Freedman, 893, April '59.
Object Relations Therapy in Schizophrenic States ; H. Azima, 60, July '58.
Preliminary Observations on Trifluoperazine in Schizophrenia (C.N.) ; Eliere J. Tolan, 935, Apr. '59.
Proclorperazine in the Treatment of the Schizophrenias (C.N.) ; Veronica M. Pennington, 829, Mar. '59.
Regressive EST, Chlorpromazine, and Group Therapy in Treatment of Hospitalized Schizophrenics ; Peter D. King, 354, Oct. '58.
Report of World Health Organization Study Group on Schizophrenia, Geneva, September 9-14, 1957 ; 865, Apr. '59.
Role of the Father in Families with a Schizophrenic Patient ; Murray Bowen, 1017, May '59.
Schizophrenia in Relation to Blood Groups ABO and Blood Types RH.D. and MN. (C.N.) ; C. R. Lafferty, 161, Aug. '58.
The Schizophrenic Patients with an Increase of the Protein Content of the CSF (C.N.) ; Walter L. Bruetsch, 545, Dec. '58.
Schizophrenic Symptomatology in Mentally Retarded Children ; Joseph Wortis, 429, Nov. '58.
Specific Behavioral Changes Produced by Chlorpromazine in Chronic Schizophrenics ; C. Scott Moss, 449, Nov. '58.
Tarazein, Fact or Artifact ? (C.N.) ; Malcolm Siegel, 819, Mar. '59.
Termination of Chlorpromazine With Schizophrenic Patients ; W. W. Good, 443, Nov. '58.
Trifluoperazine in the Treatment of Chronic Schizophrenics (C.N.) ; Joseph A. Barsa, 812, Mar. '59.
Unity and Diversity of Schizophrenia : Clinical and Logical Analysis of the Concept of Schizophrenia, Henri Ey, 706, Feb. '59.
Use of Trifluoperazine in Chronic Negro Schizophrenics (C.N.) ; Marshall C. Sexton, 821, Mar. '59.
Seasonal Variation in the Incidence of Severely Crippling Mental Disorders ; Nelson J. Bradley, 343, Oct. '58.
Seasonal Variation in the Incidence of Severely Crippling Mental Disorders II : Alcoholism (C.N.) ; Nelson J. Bradley, 813, Mar. '59.
Security of the Womb (Corr.) ; 557, Dec. '58.
Sedation in Electroencephalography (C.N.) ; C. H. Carter, 815, Mar. '59.
Sensory Deficits : Psychological Manifestations in a Patient With Chronic Sensory Deficits (C.R.) ; Edwin S. Robbins, 744, Feb. '59.
Sex : Developmental and Sexual Factors in Women : A Comparison Between Control,

Neurotic and Psychotic Groups ; George Winokur, 1097, June '59.

Shock Therapy :

Aortic Homograft Surgery and Electroshock (C.R.) ; R. K. Greenbank, 469, Nov. '58.

Delayed Complications of ECT—"Crush Syndrome" : Report of a Fatality ; Ronald McNichol, 346, Oct. '58.

Electric Shock Therapy in the Treatment of a Depressed Paraplegic (C.R.) ; Joseph E. Pisetsky, 80, July '58.

Experiences with P-M, G-M Succinylcholine Modified Electroconvulsive Therapy (C.N.) ; Allan Z. Schwartzberg, 1121, June '59.

An Experimental Study of the Relative Effectiveness of Various Components of Electroshock Therapy (C.N.) ; Norman Q. Brill, 734, Feb. '59.

Failure of Convulsive Response in Electroconvulsive Therapy in A Patient Treated With Acetazolamide (Diamox) (C.R.) ; J. T. Ungerleider, 8, July '58.

Serum Calcium Levels After ECT Modified with Scoline (C.N.) ; Hugh Jarvie, 933, Apr. '59.

Modified ECT Using Succinylcholine Followed by Prolonged Apnea (C.R.) ; W. Hamelburg, 826, Mar. '59.

P.M.-G.M. Succinylcholine Modified EST Technique (Corr.) ; 260, Sept. '58.

A Technique of Modifying ECT Convulsions (C.N.) ; W. Ironside, 251, Sept. '58.

Shop Talk (Ed.) ; 85, July '58.

Social Maladjustment Unit : A Community Wide Approach to the Problem of Delinquent Behavior ; Nathan Blackman, 536, Dec. '57.

Social Work, Psychiatric : (Review of Psychiatric Progress, 1958) ; Margaret L. Newcomb, 641, Jan. '59.

Solomon, Harry Caesar, M.D., President—1957-58 : A Biographical Sketch ; Francis H. Sleeper, 10, July '58.

Space Psychiatry :

Symposium on Space Psychiatry ; Compiled by Robert L. Williams, 1108, June '59.

Psychiatric Research in Space Medicine ; George E. Ruff, 793, Mar. '59.

Special Notice :

A list of Some of the Newer Drugs Used in Psychiatric Progress ; S. Bernard Wortis, 164, Aug. '58.

Spinal Changes During Chlorpromazine Therapy (P.R.) ; James K. Smith, 167, Aug. '58.

State Commissioners of Mental Health, First National Meeting (Ed.) ; 945, Apr. '59.

Suicide :

Suicide as a Medical Responsibility ; David J. Vail, 1006, May '59.

Communication of Suicidal Intent : A Study of 134 Consecutive Cases of Successful (Completed) Suicide ; Eli Robins, 724, Feb. '59.

Swedish Psychiatry ; Olof Kinberg, 505, Dec. '58.

T

Taraxein, Fact or Artifact ? (C.N.) ; Malcolm Siegel, 819, Mar. '59.

Temporal Orientation, A Singular Distortion of ; 146, Aug. '58.

Temporary Insanity as a Defense ; Leo L. Orenstein, 121, Aug. '58.

Temposil : Treatment of Chronic Alcoholics with Citrated Calcium Carbimide (Temposil) (C.N.) ; Jackson A. Smith, 822, Mar. '59.

Terminology : Psychiatric Orthoëpy ; James M. A. Weiss, 226, Sept. '58.

Topectomy : *See* Psychosurgery.

Time Experience : A Singular Distortion of Temporal Orientation ; Max Dahl, 146, Aug. '58.

Tranquilizers : *See* Psychopharmacology.

V

Verbal Signals : Repetition of Verbal Signals : Behavioral and Physiological Changes ; D. Ewen Cameron, 985, Mar. '59.

W

World Health Organization : Report of Study Group on Schizophrenia, Geneva, September 9-14, 1957 ; 865, Apr. '59.

AUTHOR INDEX

A

Anderson, Charles W. G. : *See* Simon, John L., jt. auth.

Appel, Kenneth E. ; and Pearson, Manuel M. : Facilities For Psychiatric Education : Survey of Psychiatric Departments in Medical Schools, 698, Feb. '59.

Apter, Nathaniel S. : Bilateral Adrenalectomy in Chronic Schizophrenic Patients : 6 Years After, 55, July '58.

Arneson, Genevieve A. : Hazards in Tranquilizing the Elderly Patient (C.N.), 163, Aug. '58.

Ascher, Eduard: *See* Eisenberg, Leon, jt. auth.
Axelrod, Julius: *See* Szara, Stephen, jt. auth.
Azima, H.; Wittkower, D.; and LaTendresse, J.: Object Relations Therapy in Schizophrenic States, 60, July '58.
Azima, H.; and Vispo, R. H.: Imipramine: A Potent New Anti-Depressant Compound (C.N.), 245, Sept. '58.

B

Babikian, H.: *See* Jacoby, M. G., jt. auth.
Bandler, Bernard: Some Conceptual Tendencies in the Psychosomatic Movement, 36, July '58.
Barnes, Robert H.: *See* Ebaugh, Franklin G., jt. auth.
Barsa, Joseph A.: Tranquilizers and Energizers (C.N.), 543, Dec. '58.
Barsa, Joseph A.; Saunders, John C.; and Kline, Nathan S.: Trifluoperazine in the Treatment of Chronic Schizophrenics (C.N.), 812, Mar. '59.
Barsa, Joseph A.: Use of Chlorpromazine Combined With Meprobamate (C.N.), 79, July '58.
Basamania, Betty: *See* Bowen, Murray, jt. auth.
Belisle, John A.; Townley, Merlin C.; Kozlowski, V. L.; and Martel, Pierre: A Study of Iproniazid Treatment in Chronic Akinetic Patients (C.N.), 544, Dec. '58.
Benjamin, William S.: *See* Modlin, Herbert C., jt. auth.
Bennett, A. E.: Problems in Establishing and Maintaining Psychiatric Units in General Hospitals, 974, May '59.
Bergman, Philip S.: *See* Mahrer, Peter R., jt. auth.
Bolin, B. J.; and Scott, Dorothy: Patient Industry and the Worker's Attitudes Towards Their Jobs (C.N.), 246, Sept. '58.
Bond, Earl D.: Philadelphia Metropolitan Psychiatry in 1959, 929, Apr. '59.
Bowen, Murray; Dysinger, Robert H.; and Basamania, Betty: The Role of the Father in Families with a Schizophrenic Patient, 1017, May '59.
Bowman, Karl M.: Alcoholism and Geriatrics (Review of Psychiatric Progress, 1958), 619, Jan. '59.
Bowman, Karl M.: The Verdict of the Kinsey Imports, 126, Aug. '58.
Boyd, David A., Jr.: *See* Freeman, Walter, jt. auth.
Bradley, Nelson J.; and Lucero, Rubel J.: Seasonal Variation in the Incidence of Severely Crippling Mental Disorders, 343, Oct. '58.
Bradley, Nelson J.; and Lucero, Rubel J.: Seasonal Variation in the Incidence of Severely Crippling Mental Disorders II: Alcoholism (C.N.), 813, Mar. '59.
Branch, C. H.; Hardin and Ely, Joy W.: Teaching the Principles of Ambulant Psychotherapy, 887, Apr. '59.
Braun, Manfred; and Parker, Milford: The Use of Glucagon in the Termination of Therapeutic Insulin Coma (C.N.), 814, Mar. '59.
Brill, Norman Q.; Crumpton, E.; Eiduson, S.; Grayson, H. M.; Hellman, L. I.; and Richards, Robert A.: An Experimental Study of the Relative Effectiveness of Various Components of Electroshock Therapy (C.N.), 734, Feb. '59.
Brooks, George W.: Withdrawal from Neuroleptic Drugs (C.N.), 931, Apr. '59.
Brown, Jonathan: *See* DiMascio, Alberto, jt. auth.
Bruetsch, Walter L.: The Schizophrenic Patients with an Increase of the Protein Content of the Cerebrospinal Fluid (C.N.), 545, Dec. '58.
Bruetsch, Walter L.: *See* Williams, Clifford, jt. auth.
Burgemeister, Bessie B.: *See* Zimmerman, Frederic T., jt. auth.

C

Cameron, D. Ewen; Levy, Leonard; Rubenstein, L.; and Malmo, R. B.: Repetition of Verbal Signals: Behavioural and Physiological Changes, 985, May '59.
Canter, Arthur: *See* Uhlenhuth, E. H., jt. auth.
Carey, Beverly: *See* Petersen, Magnus C., jt. auth.
Carlson, Eric T.: The Influence of Phrenology on Early American Psychiatric Thought, 535, Dec. '58.
Carter, C. H.: Sedation in Electroencephalography (C.N.), 815, Mar. '59.
Cease, Eugene A.: *See* Suess, James F., jt. auth.
Charatan, Frederick B.: *See* Wisebord, Nathan, jt. auth.
Christian, Dorothy: *See* Smith, Jackson A., jt. auth.
Cohen, Harry; and Freireich, Anna Z.: Trilafon in the Treatment of Chronically Psychotic Hospitalized Patients, 452, Nov. '58.
Cohen, Sidney; Fichman, Lionel; Eisner, Betty Grover: Subjective Reports of Lysergic Acid Experiences in a Context of Psychological Test Performance, 30, July '58.
Cohen, Sidney: TP-21, A New Phenothiazine (C.N.), 358, Oct. '58.

Cohn, Robert ; and Nardini, John E. : The Correlation of Bilateral Occipital Slow Activity in the Human EEG With Certain Disorders of Behavior, 44, July '58.
Coleman, M. Donald ; and Zwerling, Israel : The Psychiatric Emergency Clinic : A Flexible Way of Meeting Community Mental Health Needs, 980, May '59.
Collins, Ralph T. : Industrial Psychiatry (Review of Psychiatric Progress, 1958), 630, Jan. '59.
Cook, Elwyn C. : A Preliminary Report on Iproniazid (C.N.), 75, July '58.
Costa, E. : *See* Rudy, L. H., jt. auth.
Crane, George E. : Cycloserine as an Antidepressant Agent (C.N.), 1025, May '59.
Crumpton, E. : *See* Brill, Norman Q., jt. auth.
Cumming, Joseph B. : Role of the Psychiatrist in Criminal Trials, 491, Dec. '58.

D

Dahl, Max. : A Singular Distortion of Temporal Orientation, 146, Aug. '58.
Daly, David : Ictal Affect, 97, Aug. '58.
Darling, Harry F. : Acute Toxic Hypertension Due to Trifluprom azine : Report of a Case (C.R.), 1123, June '59.
Davidson, Henry A. : The Semantics of Psychotherapy, 410, Nov. '58.
Davis, F. H. ; and Weidorn, William S. : Considerations of the Utility of a Drug (Mepazine) in a Therapeutic Milieu, 65, July '58.
Day, Merle E. : *See* Gussion, Philip, jt. auth.
Denber, Herman C. B. ; Rajotte, Paul ; and Kauffman, Dorothy : Clinical Experiences With a New Phenothiazine (C.N.), 1116, June '59.
Denber, Herman C. B. : Note on Methoxydone (AHR-233) (C.N.), 360, Oct. '58.
Denber, Herman C. B. : Studies on Mescaline, VIII : Psychodynamic Observations, 239, Sept. '58.
Denber, Herman C. B. ; and West, Alexander Van : Studies on Mescaline X : Psychological Changes Before and After Mescaline as Measured by the M.N.P.I. (C.N.), 546, Dec. '58.
Denber, Herman C. B. : *See* Wisebord, Nathan, jt. auth.
DiMascio, Alberto ; Klerman, Gerald L. ; Rinkel, Max ; Greenblatt, Milton ; and Brown, Jonathan : Psycho-Physiologic Evaluation of Phenyltoloxamine, a New Phrenotropic Agent : A Comparative Study with Reserpine and Placebo, 301, Oct. '58.
Donnelly, John ; Edgren, C. Gordon ; Satter, Robert ; and Ryan, Mary P. : The Social-Legal Counselling Board : An Experiment in the Interdisciplinary Approach Involving Law, Psychiatry, and Social Work, 1021, May '59.
DuBois, Franklin S. : Rehabilitation and Occupational Therapy (Review of Progress, 1958), 635, Jan. '59.
Dysinger, Robert H. : *See* Bowen, Murray, jt. auth.

E

Ebaugh, Franklin G. ; and Barnes, Robert H. : Psychiatric Education (Review of Psychiatric Progress, 1958), 650, Jan. '59.
Ebaugh, Franklin G. : *See* Freeman, Walter, jt. auth.
Edgren, C. Gordon : *See* Donnelly, John, jt. auth.
Edwards, R. V. : Clinical Confirmation of Heistad's Predictions (C.N.), Oct. '58.
Ehrentheil, Otto F. : The Methodological Importance of Distinguishing Two Separate Causal Chains Which Together Produce the Clinical Picture of Psychosis, 220, Sept. '58.
Ehrenwald, Jan : Neurotic Interaction and Patterns of Pseudo-Heredity in the Family, 134, Aug. '58.
Eiduson, Bernice T. : Brain Mechanisms and Psychotherapy, 203, Sept. '58.
Eiduson, S. : *See* Brill, Norman Q., jt. auth.
Eisenberg, Leon ; Ascher, Eduard ; and Kanner, Leo : A Clinical Study of Gilles De La Tourette's Disease (Maladie Des Tics) in Children, 715, Feb. '59.
Eisenberg, Leon : *See* Kanner, Leo, jt. auth.
Eisner, Betty Grover : *See* Cohen, Sidney, jt. auth.
Ellis, Madelaine ; and Bachrach, Arthur J. : Psychiatric Occupational Therapy : Some Aspects of Roles and Functions, 318, Oct. '58.
Ely, Joy W. : *See* Hardin Branch, C. H., jt. auth.
Engelhardt, David M. : *See* Hankoff, Leon F., jt. auth.
Estren, Solomon : *See* Mahrer, Peter R., jt. auth.
Ey, Henri : Unity and Diversity of Schizophrenia : Clinical and Logical Analysis of the Concept of Schizophrenia, 706, Feb. '59.

F

Faucett, Robert L. : Induced Depressions : Pharmacologic Effects (C.N.), 247, Sept. '58.
Feldman, Paul : Preliminary Report on Imipramine (Tofranil) (C.N.), 1117, June '59.
Feldman, Paul E. : Two-Year Study of Pacatal Treated Patients (C.N.), 736, Feb. '59.
Fellner, Carl H. : A Clinical Note on Drug Induced Depression (C.N.), 547, Dec. '58.

Ferguson, John T. : A Preliminary Evaluation of Acepromazine (C.N.), 548, Dec. '58.
Fichman, Lionel : *See* Cohen, Sidney, jt. auth.
Finesinger, Jacob E. ; and Kellam, Sheppard G. : Permissiveness—Its Definition, Usefulness and Application in Psychotherapy, 992, May '59.
Fink, Ludwig : *See* Vlavianos, George, jt. auth.
Flach, Frederic F. : *See* Sherwin, Albert C., jt. auth.
Fleiss, Arthur N. : Mental Symptoms as Phenomena of Agnosia, Apraxia and Aphasia, 340, Oct. '58.
Forrer, Gordon R. ; and Miller, Jacob J. : Atropine Coma : A Somatic Therapy in Psychiatry, 455, Nov. '58.
Forrest, Fred M. ; Forrest, Irene S. ; and Mason, Aaron S. : A Rapid Urine Color Test For Triflupromazine (Vesprin) (C.N.), 1114, June '59.
Forrest, Irene S. : *See* Forrest, Fred M., jt. auth.
Frank, Jerome D. ; Gliedman, Lester H. ; Imber, Stanley D. ; Stone, Anthony R. ; and Nash, Earl H. : Patient's Expectancies and Relearning As Factors Determining Improvement in Psychotherapy, 961, May '59.
Freed, Herbert : On Special Uses of Diphenhydramine Hydrochloride in the Somatic Therapy Ward of a Psychiatric Hospital (C.N.), 359, Oct. '58.
Freedman, Alfred M. : Day Hospitals for Severely Disturbed Schizophrenic Children, 893, Apr. '59.
Freedman, Alfred M. : *See* Ghent, Lila, jt. auth.
Freedman, David : An Evaluation of the Efficacy of Harmonyl in Psychiatric Treatment (C.N.), 248, Sept. '58.
Freedman, Norbert : *See* Hankoff, Leon D., jt. auth.
Freeman, Walter ; Ebaugh, Franklin G. ; and Boyd, David A., Jr. : The Founding of the American Board of Psychiatry and Neurology, Inc., 769, Mar. '59.
Freeman, Walter : Psychosurgery (Review of Psychiatric Progress, 1958), 606, Jan. '59.
Freireich, Anna Z. : *See* Cohen, Harry, jt. auth.
Freund, Harold G. : *See* Moss, C. Scott, jt. auth.
Frey, Lavonne, M. : Psychiatric Nursing (Review of Psychiatric Progress, 1958), 633, Jan. '59.
Freyhan, F. A. : Therapeutic Implications of Differential Effects of New Phenothiazine Compounds, 577, Jan. '59.
Friedhoff, Arnold J. : *See* Robbins, Edwin S., jt. auth.
Friedlander, Walter J. : Epilepsy (Review of Psychiatric Progress, 1958), 623, Jan. '59.

G

Gal, Paul : Mental Symptoms in Cases of Temporal Lobe, 160, Aug. '58.
Gallinek, Alfred : Marsilid (Iproniazid) and Electroshock, 1011, May '59.
Galvin, James A. V. ; and MacDonald, John M. : A Psychiatric Study of a Mass Murderer, 1057, June '59.
Gassner, Seymour : *See* Robins, Eli, jt. auth.
Ghent, Lila ; and Freedman, Alfred M. : Comparison of Effects of Normal and Schizophrenic Serum on Motor Performance in Rate (C.N.), 465, Nov. '58.
Gibson, Robert W. ; Cohen, Mabel B. ; and Cohen, Robert A. : On the Dynamics of the Manic-Depressive Personality, 1101, June '59.
Giffin, Mary E. : *See* Goldstein, Norman P., jt. auth.
Glen, Robert S. : *See* Sadwin, Arnold, jt. auth.
Gliedman, Lester H. : *See* Frank, Jerome D., jt. auth.
Goldberg, M. : *See* Schiller, J., jt. auth.
Goldstein, Norman P. ; and Giffin, Mary E. : Psychogenic Hypersomnia, 922, Apr. '59.
Good, W. W. ; Sterling, Mac ; and Holtzman, Wayne : Termination of Chlorpromazine with Schizophrenic Patients, 443, Nov. '58.
Goshen, Charles E. : New Concepts of Psychiatric Care with Special Reference to the Day Hospital, 808, Mar. '59.
Gosline, E. ; Walters, C. J. ; and Saunders, J. C. : Clinical Report on Methoxypromazine : A New Phenothiazine (C.N.), 939, Apr. '59.
Gottlieb, Jacques ; and Tourney, Garfield : Commitment Procedures and the Advancement of Psychiatric Knowledge, 109, Aug. '58.
Grayson, H. M. : *See* Brill, Norman Q., jt. auth.
Greenbank, R. K. : Aortic Homograft Surgery and Electroshock (C.R.), 469, Nov. '58.
Greenblatt, Milton : *See* DiMascio, Alberto.
Gregory, Ian : Studies of Parental Deprivation in Psychiatric Patients, 432, Nov. '58.
Gussion, Philip ; Day, Merle E. ; and Kuna, Andrew : An Investigation of the Validity and Reliability of the Akerfeldt Test (C.N.), 467, Nov. '58.
Guttmacher, Alan F. : The Influence of Fertility Control Upon Psychiatric Illness, 683, Feb. '59.
Guze, Samuel B. : *See* Winokur, George, jt. auth.

H

Haas, Adolf ; and Kuras, Edmund J. : Some

Antecedent Factors in Army Prisoners, 143, Aug. '58.
Haden, Philip: Drugs—Single or Multiple Daily Dosage? (C.N.), 932, Apr. '59.
Hall, Bernard H.: *See* Modlin, Herbert C., jt. auth.
Hamelberg, W.: Modified ECT Using Succinylcholine Followed by Prolonged Apnea (C.R.), 826, Mar. '59.
Hankoff, Leon D.; Freedman, Norbert; and Engelhardt, David M.: The Prognostic Value of Placebo Response (C.N.), 549, Dec. '58.
Hanlon, Thomas E.: *See* Kurland, Albert A., jt. auth.
Harlow, Robert G.; and Salzman, Leonard F.: Toward the Effective Use of the Psychological Consultation, 228, Sept. '58.
Harms, Ernest: Pierre M. F. Janet (H.N.), 1036, May '59.
Harms, Ernest: A Pre-Freudian Complex-Theory (H.N.), 751, Feb. '59.
Hellman, L. I.: *See* Brill, Norman Q., jt. auth.
Hendrickson, Willard J.; and Holmes, Donald J.: Control of Behavior as a Crucial Factor in Intensive Psychiatric Treatment in an All Adolescent Ward, 969, May '59.
Herrick, Howard D.: *See* Smith, Jackson A., jt. auth.
Himwich, H. E.: *See* Rudy, L. H., jt. auth.
Hoch, Paul H.; and Lewis, Nolan D. C.: Clinical Psychiatry and Psychotherapy (Review of Psychiatric Progress, 1958), 654, Jan. '59.
Hoch, Paul H.: Research in State Mental Hospitals, 289, Oct. '58.
Hohlbein, B.: *See* Jacoby, M. G., jt. auth.
Hollender, Marc H.: *See* Szasz, Thomas S., jt. auth.
Holmes, Donald J.: See Hendrickson, Willard J., jt. auth.
Holtzman, Wayne: *See* Good, W. W., jt. auth.
Himwich, H. E.: Some Drugs Used in the Treatment of Mental Disorders (Ed.), 756, Feb. '59.

I

Imber, Stanley D.: *See* Frank, Jerome D., jt. auth.
Ironside, W.; and Ritchié, J. R.: A Technique of Modifying ECT Convulsions (C.N.), 251, Sept. '58.

J

Jacobs, Erwin M.: A Rapid Test for Cerebrospinal Fluid Protein Determination (C.N.), 816, Mar. '59.
Jacoby, M. G.: Patient Government (A.N.), 943, Apr. '59.
Jacoby, M. G.; Babikian, H.; McLamb, E.; and Hohlbein, B.: A Study in Non-Restraint, 114, Aug. '58.
Jarvie, Hugh; and Mulligan, Lily: Serum Calcium Levels After ECT Modified with Scoline (C.N.), 933, Apr. '59.
Jensen, Ruth E.: *See* Moss, C. Scott, jt. auth.
Jodrey, Louise H.; and Smith, Jackson A.: Releasable Histamine Levels and Histamine Tolerance in Tissues of 291 Psychotic Patients, 801, Mar. '59.
Jonas, Saran: Miosis Following Administration of Chlorpromazine and Related Agents (C.N.), 817, Mar. '59.
Judah, Leopold; Murphree, Oddist; and Seager, Lloyd: Psychiatric Response of Geriatric-Psychiatric Patients to Mellaril (TP-21 Sandoz) (C.N.), 1118, June '59.

K

Kahn, Eugen: Fear, Hostility, Reality, 1002, May '59.
Kalinowsky, Lothar B.: Appraisal of the "Tranquilizers" and Their Influence on Other Somatic Treatments in Psychiatry, 294, Oct. '58.
Kallmann, Franz J.: Heredity and Eugenics (Review of Psychiatric Progress, 1958), 586, Jan. '59.
Kamin, Isadore; and Shaskan, Donald A.: Death Due to Massive Overdose of Meprobamate (C.R.), 1123, June '59.
Kanner, Leo; and Eisenberg, Leon: Child Psychiatry and Mental Deficiency (Review of Psychiatric Progress, 1958), 608, Jan. '59.
Kanner, Leo: *See* Eisenberg, Leon, jt. auth.
Kaplan, Harold I.; and Kaplan, Helen S.: Current Theoretical Concepts in Psychosomatic-Medicine, 1091, June '59.
Kaplan, Helen S.: *See* Kaplan, Harold I., jt. auth.
Kauffman, Dorothy: *See* Denber, Herman C. B., jt. auth.
Kaye, Jack: *See* Robins, Eli, jt. auth.
Kellam, Sheppard G.: *See* Finesinger, Jacob E., jt. auth.
Kelley, Sister M. William: The Incidence of Hospitalized Mental Illnesses Among Religious Sisters in the U. S., 71, July '58.
Kennard, Margaret A.: The Characteristics of Thought Disturbances as Related to Electroencephalographic Findings in Children and Adolescents, 911, Apr. '59.
Kinberg, Olof: Swedish Psychiatry, 505, Dec. '58.
King, Peter D.; and Weinberger, Walter: Comparison of Proclorperazine and Chlor-

promazine in Hospitalized Chronic Schizophrenics (C.N.), 1026, May '59.
King, Peter D.: Regressive EST, Chlorpromazine, and Group Therapy in Treatment of Hospitalized Schizophrenics, 354, Oct. '58.
Klaf, Franklin S.: *See* Pisstsky, Joseph E., jt. auth.
Klerman, Gerald L.: *See* DiMascio, Alberto, jt. auth.
Kline, Nathan S.: *See* Barsa, Joseph A., jt. auth.
Kling, Arthur: *See* Masserman, Jules H., jt. auth.
Knoff, William F.: *See* Szasz, Thomas S., jt. auth.
Knox, Wilma J.: *See* Lafferty, C. R., jt. auth.
Kolb, Lawrence C.; and Montgomery, John: An Explanation For Transference Cure: Its Occurrence in Psychoanalysis and Psychotherapy, 414, Nov. '58.
Kozlowski, V. L.: *See* Belisle, John A., jt. auth.
Kral, V. A.: Senescent Memory Decline and Senile Amnestic Syndrome (C.N.), 361, Oct. '58.
Kratter, Frederick Edward: Music Therapy For the Mentally Retarded (C.N.), 737, Feb. '59.
Kris, Else B.: Intensive Short-Term Therapy in a Day Care Facility For Control of Recurrent Psychotic Symptoms (C.N.), 1027, May '59.
Kruse, Walter: Experience with Trifluoperazine in 110 Female Schizophrenics (C.N.), 1031, May '59.
Kuhn, Roland: The Treatment of Depressive States With G22355 (Imipramine Hydrochloride), 459, Nov. '58.
Kuna, Andrew: *See* Gussion, Philip, jt. auth.
Kuras, Edmund J.: *See* Haas, Adolf, jt. auth.
Kurland, Albert A.; Nilsson, Gertrude L.; and Hanlon, Thomas E.: Pre-Admission Drug Treatment of State Psychiatric Hospital Patients (C.N.), 1028, May '59.

L

Lacy, S. Burritt: *See* Modlin, Herbert C., jt. auth.
Lafferty, C. R.; and Knox, Wilma J.: Schizophrenia in Relation to Blood Groups ABO and Blood Types RH.D. and MN (C.N.), 161, Aug. '58.
Langworthy, O. R.: Neuropathology, Endocrinology, Biochemistry (Review of Psychiatric Progress, 1958), 589, Jan. '59.
LaTendresse, J.: *See* Azima, H., jt. auth.
Laughlin, Henry P.: Psychiatry in Asia and the Middle East, 193, Sept. '58.
Laverne, Albert A.: Narco-Stimulation, 738, Feb. '59.
Lemere, Frederick: JB-516 and Iproniazid (Marsilid) (P.R.), 554, Dec. '58.
Leveton, Alan F.: The Evaluation and Testing of Psychopharmaceutic Drugs, 232, Sept. '58.
Levitt, Melvin: *See* Masserman, Jules H., jt. auth.
Levy, Edwin Z.: *See* Ruff, George E., jt. auth.
Levy, Leonard: See Cameron, D. Ewen, jt. auth.
Levy, Sol: Post-Encephalitic Behavior Disorder—A Forgotten Entity: A Report of 100 Cases, 1062, June '59.
Liberson, W. T.: Electroencephalography (Review of Psychiatric Progress, 1958), 593, Jan. '59.
Lilly, John C.: Some Considerations Regarding Basic Mechanisms of Positive and Negative Types Motivation, 498, Dec. '58.
Lippman, Hyman; Gerty, Francis; Boyd, David A., Jr.: Pastoral-Psychiatric Workshops: The St. John's Mental Health Institute, 529, Dec. '58.
Longenecker, E. D.: *See* Orzeck, A. Z., jt. auth.
Lucero, Rubel J.: *See* Bradley, Nelson J., jt. auth.
Lucero, Rubel J.: *See* Bradley, Nelson J., jt. auth.

M

MacCormick, Austin: A Criminologist Looks at Privilege, 1068, June '59.
MacDonald, John M.: *See* Galvin, James A. V., jt. auth.
MacIver, John; and Redlich, Frederick C.: Patterns of Psychiatric Progress, 692, Feb. '59.
Machlin, Stanley D.: *See* Zucker, Arnold H., jt. auth.
Madden, John J.; Luhan, Joseph A.; Tuteur, Werner; and Bimmerle, John F.: Characteristics of Post-Partum Mental Illness, 18, July '58.
Maffett, Earl R.: *See* Muszynski, Hilda, jt. auth.
Mahrer, Peter R.; Bergman, Philip S.; and Estren, Solomon: Atropine-Like Poisoning Due to Tranquilizing Agents, 337, Oct. '58.
Malmo, R. B.: *See* Cameron, D. Ewen, jt. auth.
Mansfield, Elaine: *See* Smith, Jackson A., jt. auth.
Mansfield, Elaine: *See* Smith, Jackson A., jt. auth.
Mansfield, Elaine: *See* Smith, Jackson A., jt. auth.
Martel, Pierre: *See* Belisle, John A., jt. auth.
Mason, Aaron: *See* Forrest, Fred M., jt. auth.

Masserman, Jules H. ; Levitt, Melvin ; McAvoy, Thomas ; Kling, Arthur ; and Pechtel, Curtis : The Amygdalae and Behavior, 14, July '58.

May, Rupert H. : Catatonic-Like States Following Phenothiazine Therapy (C.N.), 1119, June '59.

Mayer-Gross, W. : Adolf Meyer Research Lecture : Model Psychoses, Their History, Relevancy and Limitations, 673, Feb. '59.

McAvoy, Thomas : *See* Masserman, Jules H., jt. auth.

McGuire, C. : *See* Orzeck, A. Z., jt. auth.

McLamb, E. : *See* Jacoby, M. G., jt. auth.

McNichol, Ronald : Delayed Complications of ECT—"Crush Syndrome" : Report of a Fatality, 346, Oct. '58.

Mebane, John C. : *See* Moriarty, John D., jt. auth.

Mendel, Werner M. : Observations on the Comparative Effects on Tranquilizers on Patients Previously Treated with Prochlorperazine (C.N.), 466, Nov. '58.

Meyers, Sanford H. ; and Weiner, Benjamin : Preliminary Report on Trifluprom azine (C.N.), 743, Feb. '59.

Michael, Calvin : *See* Vaisberg, Maurice, jt. auth.

Miller, Jacob J. : *See* Forrer, Gordon R., jt. auth.

Modlin, Herbert C. ; Benjamin, William S. ; Lacy, S. Burritt ; Hall, Bernard H. ; and Satten, Joseph : Growth of Psychiatrists During and After Residency Training : An Objective Evaluation, 1081, June '59.

Montgomery, John : *See* Kolb, Lawrence C., jt. auth.

Moriarty, John D. ; and Mebane, John C. : Clinical Uses of Deanol (Deaner) : A New Type of Psychotropic Drug (C.N.), 941, Apr. '59.

Morrow, William : *See* Moss C. Scott, jt. auth.

Morse, Robert T. : A Serious and Little Recognized Deficit in Post-War Psychiatric Residency Training, 899, Apr. '59.

Moss, C. Scott ; Jensen, Ruth E. ; Morrow, William ; and Freud, Harold G. : Specific Behavorial Changes Produced by Chlorpromazine in Chronic Schizophrenia, 449, Nov. '58.

Mulligan, Lily : *See* Jarvie, Hugh, jt. auth.

Murphree, Oddist : *See* Judah, Leopold, jt. auth.

Murphy, George : *See* Robins, Eli, jt. auth.

Muszynski, Hilda ; and Maffett, Earl R. : Drug Induced Tranquilization vs. Drug Induced Agitation (C.N.), 1029, May '59.

Myers, J. Martin ; and Smith, Lauren H. : Administrative Psychiatry (Review of Psychiatric Progress, 1958), 647, Jan. '59.

N

Nardini, John E. : *See* Cohn Robert, jt. auth.

Nash, Earl H. : *See* Frank, Jerome D., jt. auth.

Neustadt, John C. : *See* Uhlenhuth, E. H., jt. auth.

Newcomb, Margaret L. : Psychiatric Social Work (Review of Progress, 1958), 641, Jan. '59.

Nicklin, George : *See* Toolan, James M., jt. auth.

Nilsson, Gertrude L. : *See* Kurland, Albert A., jt. auth.

Niswander, G. Donald : *See* Siegel, Malcolm, jt. auth.

O

O'Neal, Patricia ; and Robins, Lee N. : Childhood Patterns Predictive of Adult Schizophrenia : A 30-Year Follow-Up Study, 385, Nov. '58.

Orenstein, Leo L. ; and Weisstein, Alfred : Temporary Insanity as a Defense, 121, Aug. '58.

Orzeck, A. Z. ; McGuire, C. ; and Longenecker, E. D. : Multiple Self Concepts as Effected by Mood States, 349, Oct. '58.

Overholser, Winfred : Forensic Psychiatry (Review of Psychiatric Progress, 1958), 645, Jan. '59.

P

Parker, Milford : *See* Braun, Manfred, jt. auth.

Payne, R. W. : Diagnostic and Personality Testing in Clinical Psychology, 25, July '58.

Payson, Henry E. : *See* Uhlenhuth, E. H., jt. auth.

Pearson, Manuel M. : *See* Appel, Kenneth E., jt. auth.

Pechtel, Curtis : *See* Masserman, Jules H., jt. auth.

Peck, R. : *See* Schiller, J., jt. auth.

Pennington, Veronica M. : Clinical Results of Trifluprom azine (Vesprin) in 132 Psychotic Patients (C.N.), 749, Feb. '59.

Pennington, Veronica M. : Proclorperazine in the Treatment of the Schizophrenias (C.N.), 820, Mar. '59.

Pennington, Veronica M. : The Use of Deprol in Chronic Psychotic Patients (C.N.), 250, Sept. '58.

Peppel, H. H. : *See* Tolan, Eliere J., jt. auth.

Perlin, Seymour : *See* Pollin, William, jt. auth.

Perlin, Seymour : *See* Szara, Stephen, jt. auth.

Perr, Irwin N. : Medical, Psychiatric, and Legal Aspects of Premenstrual Tension, 211, Sept. '58.

Petersen, Magnus C.; Carey, Beverly; and Rhoads, Donald V.: Blood Dyscrasias Due to Phenothiazine Derivatives: Report of Four Cases (C.R.), 257, Sept. '58.
Pettit, Manson B.: *See* Riesenman, F. Regis, jt. auth.
Pfeiffer, Eric: *See* Winokur, George, jt. auth.
Pisetsky, Joseph E.; and Klaf, Franklin S.: Electric Shock Therapy in the Treatment of a Depressed Paraplegic (C.R.), 80, July '58.
Pollack, Benjamin: The Validity of the Forrest Reagent Test for the Detection of Chlorpromazine or other Phenothiazines in the Urine (C.N.), 76, July '58.
Pollack, Max: Brain Damage, Mental Retardation and Childhood Schizophrenia, 422, Nov. '58.
Pollin, William; and Perlin, Seymour: Psychiatric Evaluation of "Normal Control" Volunteers, 129, Aug. '58.

R

Radzinski, J. M.: The American Melting Pot: Its Meaning to Us, 873, Apr. '59.
Rajotte, Paul: *See* Denber, Herman C. B., jt. auth.
Raskin, Naomi: Non-Restraint (H.N.), 471, Nov. '58.
Rawitt, Kurt C.: The Usefulness and Effectiveness of Equanil® in Children (C.N.), 1120, June '59.
Redlich, Frederick C.: *See* MacIver, John, jt. auth.
Rees, J. R.: The Academic Lecture: The Way Ahead, 481, Dec. '58.
Reiner, R. E.: EEG Changes with Promazine (C.N.), 742, Feb. '59.
Rhoads, Donald V.: *See* Petersen, Magnus C., jt. auth.
Richards, Robert A.: *See* Brill, Norman Q., jt. auth.
Riesenman, F. Regis; and Pettit, Manson B.: Clinical Efficacy of Proclorperazine (Compazine) in Mental Illness (C.N.), 1032, May '59.
Rinaldi, F.: *See* Rudy, L. H., jt. auth.
Rinkel, Max: *See* DiMascio, Alberto, jt. auth.
Ritchie, J. R.: *See* Ironside, W., jt. auth.
Robbins, Edwin S.; and Friedhoff, Arnold J.: Psychological Manifestations in a Patient With Chronic Sensory Deficits (C.R.), 744, Feb. '59.
Robie, Theodore R.: Iproniazid Chemotherapy in Melancholia, 402, Nov. '58.
Robins, Eli; Gassner, Seymour; Kaye, Jack; Wilkinson, Robert H., Jr.; and Murphy, George E.: The Communication of Suicidal Intent: A Study of 134 Consecutive Cases of Successful (Completed) Suicide, 724, Feb. '59.
Robins, Lee N.: *See* O'Neal, Patricia, jt. auth.
Rogers, George A.: Addiction to Glutethimide (Doriden) (C.R.), 551, Dec. '58.
Rood, Reginald S.: The Nonpsychotic Offender and the State Hospital, 512, Dec. '58.
Ross, Philip H.; Shawver, John R.; and Tarnowski, Stanley M.: Electrocardiography as a Routine Admission Procedure in a Large Neuropsychiatric Hospital: An Evaluation (C.N.), 1034, May '59.
Roth, Nathan: Mind, Matter and Brain, 62, July '58.
Rubenstein, L.: *See* Cameron, D. Ewen, jt. auth.
Rudy, L. H.; Rinaldi, F.; Costa, E.; Himwich, H. E.; Tuteur, W.; and Glotzer, J.: Trifluoperazine in the Treatment of Psychotic Patients (C.N.), 364, Oct. '58.
Ruff, George E.; and Levy, Edwin Z.: Psychiatric Research in Space Medicine, 793, Mar. '59.
Rutherford, Avonell: *See* Smith, Jackson A., jt. auth.
Ryan, Mary P.: *See* Donnelly, John, jt. auth.
Ryan, W. Carson: Mental Health in Education (Review of Psychiatric Progress, 1958), 628, Jan. '59.

S

Sachs, Ernest, Jr.: *See* Siegel, Malcolm, jt. auth.
Sadwin, Arnold; and Glen, Robert S.: Addiction to Blutethimide (Doriden) (C.R.), 469, Nov. '58.
Salzman, Leonard F.: *See* Harlow, Robert G., jt. auth.
Sands, Sidney L.: Discharges From Mental Hospitals, 748, Feb. '59.
Santoso, R. Slamet Iman: The Social Conditions of Psychotherapy in Indonesia, 798, Mar. '59.
Satten, Joseph: *See* Modlin, Herbert C., jt. auth.
Satter, Robert: *See* Donnelly, John, jt. auth.
Saunders, J. C.: *See* Gosline, E., jt. auth.
Saunders, John C.: *See* Barsa, Joseph A., jt. auth.
Saunders, John C.: *See* Vaisberg, Maurice, jt. auth.
Schiller, J.; Peck, R.; and Goldberg, M.: The Effect of Dextrose, Fat Emulsion and Amino Acids on the Rate of Disappearance of Alcohol in the Blood (C.N.), 365, Oct. '58.
Schneck, Jerome M.: Anxiety-Depression and Pharmacotherapy-Correlations (C.N.), 77, July '58.

Schwartzberg, Allan Z. : Experiences with P-M, G.M. Succinylcholine Modified Electroconvulsive Therapy (C.N.), 1121, June '59.
Scott, Dorothy : *See* Bolin, B. J., jt. auth.
Scott, Winfield : *See* Zucker, Arnold H., jt. auth.
Seager, Lloyd : *See* Judah, Leopold, jt. auth.
Sexton, Marshall C. : Use of Trifluoperazine in Chronic Negro Schizophrenics (C.N.), 821, Mar. '59.
Shaskan, Donald A. : *See* Kamin, Isadore, jt. auth.
Shawver, John R. : *See* Ross, Philip H., jt. auth.
Sherwin, Albert C. ; Flach, Frederic F. ; and Stokes, Peter E. : Treatment of Psychoses in Early Childhood with Triiodothyronine (P.R.), 166, Aug. '58.
Siegel, Malcolm ; Niswander, G. Donald ; Sachs, Ernest, Jr. ; and Stavros, Dino : Taraxein, Fact or Artifact? (C.N.), 819, Mar. '59.
Simon, John L. ; and Anderson, Charles W. G. : Liothyronine Treatment of Adult Cretin With Psychosis (C.R.), 552, Dec. '58.
Skobba, Joseph S. : Military Psychiatry (Review of Psychiatric Progress, 1958), 649, Jan. '59.
Sleeper, Francis H. : Harry Caesar Solomon, M.D., President—1957-1958 : a Biographical Sketch, 10, July '58.
Smith, Jackson A. ; Christian, Dorothy ; Rutherford, Avonell ; and Mansfield, Elaine : A Comparison of Trifluprom azine (Vesprin), Chlorpromazine, and Placebo in 85 Chronic Patients (C.N.), 253, Sept. '58.
Smith, Jackson A. ; Strough, Laverne C. ; Wittson, Cecil ; and Mansfield, Elaine : A Program For The Psychiatric Training of General Probationers While Utilizing Their Offices as an Outpatient Facility, 539, Dec. '58.
Smith, Jackson A. ; Mansfield, Elaine ; and Herrick, Howard D. : The Treatment of Chronic Alcoholics with Citrated Calcium Carbimide (Temposil) (C.N.), 822, Mar. '59.
Smith, Jackson A. : *See* Jodrey, Louise H., jt. auth.
Smith, James K. : Spinal Fluid Changes During Chlorpromazine Therapy (P.R.), 167, Aug. '58.
Smith, Lauren H. : *See* Myers, J. Martin, jt. auth.
Snow, Herman B. : Open Ward Policy at St. Lawrence State Hospital, 779, Mar. '59.
Solomon, Harry C. : The Presidential Address : The American Psychiatric Association in Relation to American Psychiatry, 1, July '58.
Sommer, Robert : Letter-Writing in a Mental Hospital, 514, Dec. '58.
Spitzer, Robert L. : A Clinical Trial of Monosodium Glutamate (L-Glutavite) on Hospitalized Elderly Male Psychotic Patients (C.N.), 936, Apr. '59.
Stanley, W. J. : Prolonged Hypotension Due to Chlorpromazine (C.R.), 1124, June '59.
Stavros, Dino : *See* Siegel, Malcolm, jt. auth.
Sterling, Mac : *See* Good, W. W., jt. auth.
Stern, Henry Root, Jr. : The Problem of Privilege : Historical and Juridical Sidelights, 1071, June '59.
Stevenson, George S. : World Federation for Mental Health (Ed.), 828, Mar. '59.
Stokes, Peter E. : *See* Sherwin, Albert C., jt. auth.
Stoller, Robert J. : The Teaching of Forensic Psychiatry in American and Canadian Medical Centers, 150, Aug. '58.
Stone, Anthony R. : *See* Frank, Jerome D., jt. auth.
Strough, Laverne C. : *See* Smith, Jackson A., jt. auth.
Suess, James F. ; and Cease, Eugene A. : Successful Termination of Prolonged Insulin Coma of Twenty Days with One Year Follow-Up (C.R.), 745, Feb. '59.
Szara, Stephen ; Axelrod, Julius ; and Perlin, Seymour : Is Adrenochrome Present in the Blood? (C.N.), 162, Aug. '58.
Szasz, Thomas S. ; Knoff, William F. ; and Hollender, Marc H. : The Doctor-Patient Relationship and its Historical Context, 522, Dec. '58.
Szasz, Thomas S. : Politics and Mental Health : Some Remarks Apropos of the Case of Mr. Ezra Pound, 508, Dec. '58.

T

Tarnowski, Stanley M. : *See* Ross, Philip H., jt. auth.
Timberlake, William H. : Clinical Neurology (Review of Psychiatric Progress, 1958), 611, Jan. '59.
Tolan, Eliere J. ; and Peppel, H. H. : Preliminary Observations on Trifluoperazine in Schizophrenia (C.N.), 935, Apr. '59.
Toll, Nina : Deaner : An Adjunct for Treatment of Schizoid and Schizophrenic Patients, 366, Oct. '58.
Toolan, James M. ; and Nicklin, George : Open Door Policy on an Adolescent Service in a Psychiatric Hospital, 790, Mar. '59.
Tourney, Garfield : *See* Gottlieb, Jacques, jt. auth.
Townley, Merlin C. : *See* Belisle, John A., jt. auth.

Travis, John H. : *See* Wisebord, Nathan, jt. auth.
Tuteur, W. : *See* Rudy, L. H., jt. auth.

U

Uhlenhuth, E. H. ; Canter, Arthur ; Neustadt, John O. ; and Payson, Henry E. : The Symptomatic Relief of Anxiety with Meprobamate, Phenobarbital and Placebo, 905, Apr. '59.
Ungerleider, J. T. : Failure of Convulsive Response in Electroconvulsive Therapy in a Patient Treated with Acetazolamide (Diamox) (C.R.), 80, July '58.

V

Vail, David J. : Suicide and Medical Responsibility, 1006, May '59.
Vaisberg, Maurice ; Michael, Calvin ; and Saunders, John C. : Treatment of Bladder and Bowel Incontinence in Elderly Mental Patients With Nor-Eth-Androlone (Nilevar) (C.N.), 938, Apr. '59.
Vann, Douglas : Promazine-Iproniazid : A Brief Report (C.N.), 824, Mar. '59.
Vispo, R. H. : *See* Azima, H., jt. auth.
Vlavianos, George ; and Fink, Ludwig : The Clinical Effect of Nor-eth-androlone (Nilevar) on Incontinent Mental Patients (C.N.), 164, Aug. '58.

W

Wall, James H. : Diagnosis, Treatment and Results in Anorexia Nervisa, 997, May '59.
Walters, C. J. : *See* Gosline, E., jt. auth.
Weidorn, William S. : *See* Davis, F. H., jt. auth.
Weinberger, Walter : *See* King, Peter D., jt. auth.
Weiner, Benjamin : *See* Meyers, Sanford H., jt. auth.
Weiss, James M. A. : Psychiatric Orthoepy, 226, Sept. '58.
Weisstein, Alfred : *See* Orenstein, Leo L., jt. auth.
West, Alexander Van : *See* Denber, Herman C. B., jt. auth.
West, Louis Jolyon : Psychiatric Aspects of Training for Honorable Survival as a Prisoner of War, 329, Oct. '58.
Wilkinson, Robert H., Jr. : *See* Robins, Eli, jt. auth.
Williams, Clifford L. ; and Bruetsch, Walter L. : Mental Deterioration and Occlusion of the Internal Carotid Arteries in the Neck (C.R.), 256, Sept. '58.
Williams, Robert L. (Compiler) : Symposium on Space Psychiatry, 1108, June '59.
Winokur, George ; Guze, Samuel B. ; and Pfeiffer, Eric : Development and Sexual Factors in Women : A Comparison Between Control, Neurotic and Psychotic Groups, 1097, June '59.
Wisebord, Nathan ; Denber, Herman C. B. ; Charatan, Frederick B. ; and Travis, John H. : Patient Reactions to the "Open Door," 518, Dec. '58.
Wittkower, D. : *See* Azima, H., jt. auth.
Witton, Kurt : Acute Transitory Psychotic Reaction Manifested After Radioactive Iodine Treatment for Hyperthyroidism (C.R.), 746, Feb. '59.
Wittson, Cecil : *See* Smith, Jackson A., jt auth.
Wortis, Joseph : Physiological Treatment (Review of Psychiatric Progress, 1958), 599, Jan. '59.
Wortis, Joseph : Schizophrenic Symptomatology in Mentally Retarded Children, 429, Nov. '58.
Wortis, S. Bernard : A List of Some of the Newer Drugs in Psychiatric Practice, 169, Aug. '58.
Wyatt, Frederick : Clinical Psychology (Review of Psychiatric Progress, 1958), 596, Jan. '59.

Z

Zimmerman, Frederic T. ; and Burgemeister, Bessie B. : Action of Methyl-Phenidylacetate (Ritalin) and Reserpine in Behavior Disorders in Children and Adults, 323, Oct. '58.
Zlotlow, M. ; and Paganini, A. E. : Fatalities in Patients Receiving Chlorpromazine and Reserpine During 1956-1957 at Pilgrim State Hospital, 154, Aug. '58.
Zwerling, Israel : *See* Coleman, Donald M., jt. auth.

THE AMERICAN JOURNAL OF PSYCHIATRY

PUBLISHED BY

THE AMERICAN PSYCHIATRIC ASSOCIATION

VOLUME 115

"The care of the human mind is the most noble branch of medicine."—GROTIUS

HANOVER, N. H.

1958-1959

THE DARTMOUTH PRINTING CO.
HANOVER, N. H., U.S.A.

THE AMERICAN PSYCHIATRIC ASSOCIATION

OFFICERS 1958-1959

President: FRANCIS J. GERTY
Vice President: DAVID C. WILSON
Secretary: C. H. HARDIN BRANCH

President-Elect: WILLIAM MALAMUD
Vice President: WILLIAM B. TERHUNE
Treasurer: ROBERT H. FELIX

COUNCILLORS

For 3 years
HARRY C. SOLOMON
LAWRENCE KOLB, JR.
DANA L. FARNSWORTH
ROBERT T. MORSE

For 2 years
FRANCIS J. BRACELAND
ADDISON M. DUVAL
GEORGE TARJAN
JACQUES GOTTLIEB

For 1 year
NORMAN Q. BRILL
DONALD G. MCKERRACHER
HOWARD P. ROME

EXECUTIVE COMMITTEE

FRANCIS J. GERTY
WILLIAM MALAMUD
C. H. HARDIN BRANCH
ROBERT H. FELIX
HARRY C. SOLOMON
ADDISON M. DUVAL
Ex-Officio
DAVID C. WILSON
WILLIAM B. TERHUNE

ASSEMBLY OF DISTRICT BRANCHES

WALTER H. OBENAUF (Speaker)
ALFRED AUERBACK (Deputy Speaker)
JOHN R. SAUNDERS (Recorder)

MEDICAL DIRECTOR

MATTHEW ROSS, 1700-18th Street, N. W., Washington 9, D. C.

EXECUTIVE ASSISTANT

AUSTIN M. DAVIES, 1270 Avenue of the Americas, New York 20, N. Y.

CHAIRMEN OF COMMITTEES

CONSTITUTIONAL COMMITTEES

Arrangements
THEODORE DEHNE
LAUREN SMITH

Board of Tellers
EVELYN IVEY

Membership
MANUEL M. PEARSON

Nominating
D. EWEN CAMERON

STANDING COMMITTEES (Internal Activities of the Association)

Budget
JACK R. EWALT

Constitution and By-Laws
HENRY A. DAVIDSON

Ethics
MESROP TARUMIANZ

House Committee
ADDISON M. DUVAL

Program
JOHN DONNELLY

STANDING COMMITTEES (Technical Aspects)

FRANK J. CURRAN
Coordinating Chairman

Aging
EWALD W. BUSSE

Child Psychiatry
J. FRANKLIN ROBINSON

History of Psychiatry
J. SANBOURNE BOCKOVEN

Medical Education
GEORGE C. HAM

Mental Deficiency
HOWARD BAIR

Public Health
JOHN BLASKO

Rehabilitation
BENJAMIN SIMON

Research
MILTON GREENBLATT

Therapy
HENRIETTE R. KLEIN

STANDING COMMITTEES (Professional Standards)

WILFRED BLOOMBERG
Coordinating Chairman

Legal Aspects of Psychiatry
LOUIS P. GENDREAU

Liaison with American Academy of General Practice
ROBERT MATTHEWS

Liaison with American Hospital Association
RAYMOND WAGGONER

Mental Hospitals
JOSEPH E. BARRETT

Nomenclature and Statistics
MOSES M. FROHLICH

Private Practice
JOHN M. COTTON

Psychiatric Nursing
GRANVILLE L. JONES

Psychiatric Social Work
MAURICE R. FRIEND

Relations with Psychology
JOEL HANDLER

Standards and Policies of Hospitals and Clinics
HARVEY J. TOMPKINS

STANDING COMMITTEES (Community Aspects)

PAUL V. LEMKAU
Coordinating Chairman

Academic Education
C. DOUGLAS DARLING

Cooperation with Leisure Time Agencies
ALEXANDER R. MARTIN

Disaster and Civil Defense
EDWARD J. KOLLAR

Industrial Psychiatry
RALPH T. COLLINS

International Relations
LOTHAR B. KALINOWSKY

National Defense
BENJAMIN H. BALSER

Preventive Psychiatry
HENRY H. WORK

Public Information
HENRY P. LAUGHLIN

Religion and Psychiatry
EARL LOOMIS

SPECIAL COMMITTEE

Certification of Mental Hospital Administrators
WINFRED OVERHOLSER

AMERICAN JOURNAL OF PSYCHIATRY

INFORMATION FOR CONTRIBUTORS

Manuscripts—The *original* manuscripts of papers read at the annual meetings of the Association should be deposited with the Secretary during the meetings, or sent to the New York office promptly afterward. Do not deposit carbon copies.

Papers read at the annual meetings become the property of the Association. Not all papers read, however, can be published in the JOURNAL, and authors wishing to publish in other vehicles will first secure from the Editor the release of their manuscripts.

Papers will not be accepted for the annual program if they have been previously read at other meetings or if they have been already published.

Papers contributed during the year (not on the annual program) should be sent to the Editor, Dr. Clarence B. Farrar, 216 St. Clair Avenue West, Toronto 5, Ontario, Canada.

Style—Manuscripts should be typewritten, double spaced, on one side of the paper. They must be prepared in conformity with the general style of The American Journal of Psychiatry. Retain a carbon copy of manuscript and duplicates of tables, figures, etc., for use should the originals be lost in the mails.

Multiple Authorship—The number of names listed as authors should be kept to a minimum, others collaborating being shown in a footnote.

Illustrations—Authors will be asked to meet printer's costs of reproducing illustrative material. Copy for illustrations cannot be accepted unless properly prepared for reproductions. Wherever possible, drawings and charts should be made with India ink for photographic reproduction as zinc etchings. Photographs for halftone reproduction should be glossy prints. Illustrations should be as small as possible without sacrificing important detail. Redrawing or preparing illustrations to make them suitable for photographic reproduction will be charged to author.

Authors' Corrections in Proofs—Corrections, additions or deletions made by authors are to be charged to them. These alterations are charged on a time basis at the rate of $7.00 per hour. Proper editing of original manuscript is important to avoid the expense of correction.

Tables—Tables should be typed on separate sheets. Tables are much more expensive to set than text material and should be used only where necessary to clarify important points. Authors will be asked to defray cost of excessive tabular material.

References—References should be assembled according to author in a terminal bibliography, referred to in text by numbers in parentheses. Bibliographical material should be typed in accordance with the following style for journals and books respectively:

1. Vander Veer, A. H., and Reese, H. H. : Am. J. Psychiat., 95 : 271, Sept. 1938.
2. Hess, W. R. : Diencephalon. New York : Grune & Stratton, 1954.

Abbreviations should conform to the style used in the Quarterly Cumulative Index Medicus.

The American Journal of Psychiatry, formerly The American Journal of Insanity, the official organ of The American Psychiatric Association, was founded in 1844. It is published monthly, the volumes beginning with the July number.

The subscription rates are $12.00 to the volume : Canadian subscriptions $12.50 ; foreign subscriptions, $13.00, including postage. Rates to medical students, junior and senior internes, residents in training during their first, second, or third training year, and also to graduate students in psychology, psychiatric social work, and psychiatric nursing, $5.00 (Canada $5.50). Single issues, $1.25.

Office of Publication, 10 Allen St., P.O. Box 832, Hanover, N. H.

Business communications, remittances and subscriptions should be addressed to The American Psychiatric Association, 10 Allen St., P.O. Box 832, Hanover, N. H., or to 1270 Avenue of the Americas, New York 20, N. Y.

Editorial communications, books for review, and exchanges should be addressed to the Editor, Dr. Clarence B. Farrar, 216 St. Clair Avenue West, Toronto 5, Ontario, Canada.

Second class postage paid at Hanover, New Hampshire.

CONTENTS OF VOLUME 115

JULY, 1958

PRESIDENTIAL ADDRESS. *Harry C. Solomon* .. 1

HARRY CAESAR SOLOMON, M.D., PRESIDENT—1957-58. A Biographical Sketch. *Francis H. Sleeper* 10

THE AMYGDALAE AND BEHAVIOR. *Jules H. Masserman, Melvin Levitt, Thomas McAvoy, Arthur Kling and Curtis Pechtel* .. 14

CHARACTERISTICS OF POST-PARTUM MENTAL ILLNESS. *John J. Madden, Joseph A. Luhan, Werner Tuteur and John F. Bimmerle* 18

DIAGNOSTIC AND PERSONALITY TESTING IN CLINICAL PSYCHOLOGY. *R. W. Payne* .. 25

SUBJECTIVE REPORTS OF LYSERGIC ACID EXPERIENCES IN A CONTEXT OF PSYCHOLOGICAL TEST PERFORMANCE. *Sidney Cohen, Lionel Fichman and Betty Grover Eisner* 30

SOME CONCEPTUAL TENDENCIES IN THE PSYCHOSOMATIC MOVEMENT. *Bernard Bandler* 36

THE CORRELATION OF BILATERAL OCCIPITAL SLOW ACTIVITY IN THE HUMAN EEG WITH CERTAIN DISORDERS OF BEHAVIOR. *Robert Cohn and John E. Nardini* 44

BILATERAL ADRENALECTOMY IN CHRONIC SCHIZOPHRENIC PATIENTS: 6 YEARS AFTER. *Nathaniel S. Apter* 55

OBJECT RELATIONS THERAPY IN SCHIZOPHRENIC STATES. *H. Azima, E. D. Wittkower and J. LaTendresse* 60

MIND, MATTER AND BRAIN. *Nathan Roth* .. 63

CONSIDERATIONS OF THE UTILITY OF A DRUG (MEPAZINE) IN A THERAPEUTIC MILIEU. *F. H. Davis and William S. Weidorn* 66

THE INCIDENCE OF HOSPITALIZED MENTAL ILLNESS AMONG RELIGIO. SISTERS IN THE U. S. *Sister M. William Kelley* 72

CLINICAL NOTES :

A Preliminary Report on Iproniazid. *Elwyn C. Cook* 76

The Validity of the Forrest Reagent Test for the Detection of Chlorpromazine or other Phenothiazines in the Urine. *Benjamin Pollack* 77

Anxiety-Depression and Pharmacotherapy-Correlations. *Jerome M. Schneck* 78

Use of Chlorpromazine Combined with Meprobamate. *Joseph A. Barsa* 79

CASE REPORTS :

Electric Shock Therapy in the Treatment of a Depressed Paraplegic. *Joseph E. Pisetsky and Franklin S. Klaf* 80

Failure of Convulsive Response in Electroconvulsive Therapy in a Patient Treated Wtih Acetazolamide (Diamox) ℞. *J. T. Ungerleider* 81

COMMENT :

The 1958 Annual Meeting 83

Shop Talk 85

NEWS AND NOTES 86

AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC. 88

BOOK REVIEWS 90

IN MEMORIAM :

Douglas M. Kelley 96

AUGUST, 1958

ICTAL AFFECT. *David Daly* 97

COMMITMENT PROCEDURES AND THE ADVANCEMENT OF PSYCHIATRIC KNOWLEDGE. *Jacques Gottlieb and Garfield Tourney* 109

A STUDY IN NON-RESTRAINT. *M. G. Jacoby, H. Babikian, E. McLamb and B. Hohlbein* 114

TEMPORARY INSANITY AS A DEFENSE. *Leo L. Orenstein and Alfred Weisstein* 121

THE VERDICT OF THE KINSEY IMPORTS. *Karl M. Bowman* 126

PSYCHIATRIC EVALUATION OF "NORMAL CONTROL" VOLUNTEERS. *William Pollin and Seymour Perlin* 129

NEUROTIC INTERACTION AND PATTERNS OF PSEUDO-HEREDITY IN THE FAMILY. *Jan Ehrenwald* 134

SOME ANTECEDENT FACTORS IN ARMY PRISONERS. *Adolf Haas and Edmund J. Kuras* 143

A SINGULAR DISTORTION OF TEMPORAL ORIENTATION. *Max Dahl* 146

THE TEACHING OF FORENSIC PSYCHIATRY IN AMERICAN AND CANADIAN MEDICAL CENTERS. *Robert J. Stoller* 150

FATALITIES IN PATIENTS RECEIVING CHLORPROMAZINE AND RESERPINE DURING 1956-1957 AT PILGRIM STATE HOSPITAL. *M. Zlotlow and A. E. Paganini* 154

MENTAL SYMPTOMS IN CASES OF TUMOR OF TEMPORAL LOBE. *Paul Gal* 157

CLINICAL NOTES :

Schizophrenia in Relation to Blood Groups ABO and Blood Types RH.D. and MN. *C. R. Lafferty and Wilma J. Knox.* 161

Is Adrenochrome Present in the Blood? *Stephen Szara, Julius Axelrod and Seymour Perlin* 162

Hazards in Tranquilizing the Elderly Patient. *Genevieve A. Arneson* 163

The Clinical Effect of Nor-eth-androlone (Nilevar) on Incontinent Mental Patients. *George Vlavianos and Ludwig Fink* 164

PRELIMINARY REPORTS :
Treatment of Psychoses in Early Childhood with Triiodothyronine. *Albert C. Sherwin, Frederic F. Flach and Peter E. Stokes* 166
Spinal Fluid Changes During Chlorpromazine Therapy. *James K. Smith* 167
SPECIAL NOTICE :
A List of Some of the Newer Drugs Used in Psychiatric Practice. *S. Bernard Wortis* ... 169
OFFICIAL REPORTS :
Report of the Coordinating Committee on the Technical Aspects of Psychiatry 170
Hospitals Approved and Conditionally Approved by Central Inspection Board 173
COMMENT :
Mental Hospital Beds—Present and Future Needs, New York State Service 175
Jung Annotates Modern Art 177
NEWS AND NOTES 178
BOOK REVIEWS 184
IN MEMORIAM :
Merrill Moore 191

SEPTEMBER, 1958

PSYCHIATRY IN ASIA AND THE MIDDLE EAST. *Henry P. Laughlin* 193
BRAIN MECHANISMS AND PSYCHOTHERAPY. *Bernice T. Eiduson* 203
MEDICAL, PSYCHIATRIC, AND LEGAL ASPECTS OF PREMENSTRUAL TENSION. *Irwin N. Perr* 211
THE METHODOLOGICAL IMPORTANCE OF DISTINGUISHING TWO SEPARATE CASUAL CHAINS WHICH TOGETHER PRODUCE THE CLINICAL PICTURE OF PSYCHOSIS. *Otto F. Ehrentheil* 220
PSYCHIATRIC ORTHOËPY. *James M. A. Weiss* 226
TOWARD THE EFFECTIVE USE OF THE PSYCHOLOGICAL CONSULTATION. *Robert G. Harlow and Leonard F. Salzman* 228
THE EVALUATION AND TESTING OF PSYCHOPHARMACEUTIC DRUGS. *Alan F. Leveton* 232
STUDIES ON MESCALINE, VIII : PSYCHODYNAMIC OBSERVATIONS. *Herman C. B. Denber* 239
CLINICAL NOTES :
Imipramine : A Potent New Anti-Depressant Compound. *H. Azima and R. H. Vispo* .. 245
Patient Industry and the Workers' Attitudes Towards Their Jobs. *B. J. Bolin and Dorothy Scott* 246
Induced Depressions : Pharmacologic Effects. *Robert L. Faucett* 247
An Evaluation of the Efficacy of Harmonyl in Psychiatric Treatment. *David Freedman* .. 248
The Use of Deprol in Chronic Psychotic Patients. *Veronica M. Pennington* 250
A Technique of Modifying ECT Convulsions. *W. Ironside and J. R. Ritchie* 251
A Comparison of Trifluprомazine (Vesprin), Chlorpromazine, and Placebo in 85 Chronic Patients. *Jackson A. Smith, Dorothy Christian, Avonell Rutherford and Elaine Mansfield* 253
An Evaluation of Meprobamate in Opiate Withdrawal. *Arnold H. Zucker, Stanley D. Machlin and Winfield Scott* 254
CASE REPORTS :
Mental Deterioration and Occlusion of the Internal Carotid Arteries in the Neck. *Clifford L. Williams and Walter L. Bruetsch* 256
Blood Dyscrasias Due to Phenothiazine Derivatives : Report of Four Cases. *Magnus C. Petersen, Beverly Carey, and Donald V. Rhoads* 257
CORRESPONDENCE :
Premature Discharges from Public Mental Hospitals 259
P.M.-G.M. Succinylcholine Modified EST Technique 260
The Psychiatric Indication for Abortions 260
COMMENT :
States Act to Improve Their Mental Health Programs 262
Our Senior Editor 264
PROCEEDINGS OF THE AMERICAN PSYCHIATRIC ASSOCIATION :
The One Hundred And Fourteenth Annual Meeting, San Francisco, California, 1958 .. 265
The American Board of Psychiatry and Neurology, Inc. 278
NEWS AND NOTES 279
BOOK REVIEWS 282
IN MEMORIAM :
Manfred Sakel, M.D., 1900-1957 287

OCTOBER, 1958

RESEARCH IN STATE MENTAL HOSPITALS. *Paul H. Hoch* 289
APPRAISAL OF THE "TRANQUILIZERS" AND THEIR INFLUENCE ON OTHER SOMATIC TREATMENTS IN PSYCHIATRY. *Lothar B. Kalinowsky* 294
PSYCHO-PHYSIOLOGIC EVALUATION OF PHENYLTOLOXAMINE, A NEW PHRENOTROPIC AGENT : A COMPARATIVE STUDY WITH RESERPINE AND PLACEBO. *Alberto DiMascio, Gerald L. Klerman, Max Rinkel, Milton Greenblatt, and Jonathan Brown* 301
PSYCHIATRIC OCCUPATIONAL THERAPY : SOME ASPECTS OF ROLES AND FUNCTIONS. *Madelaine Ellis and Arthur J. Bachrach* 318
ACTION OF METHYL-PHENIDYLACETATE (RITALIN) AND RESERPINE IN BEHAVIOR DISORDERS IN CHILDREN AND ADULTS. *Frederic T. Zimmerman and Bessie B. Burgemeister* 323

PSYCHIATRIC ASPECTS OF TRAINING FOR HONORABLE SURVIVAL AS A PRISONER OF WAR. *Louis Jolyon West* 329
ATROPINE-LIKE POISONING DUE TO TRANQUILIZING AGENTS. *Peter R. Mahrer, Philip S. Bergman and Solomon Estren* .. 337
MENTAL SYMPTOMS AS PHENOMENA OF AGNOSIA, APRAXIA AND APHASIA. *Arthur N. Fleiss* 340
SEASONAL VARIATION IN THE INCIDENCE OF SEVERELY CRIPPLING MENTAL DISORDERS. *Nelson J. Bradley and Rubel J. Lucero* 343
DELAYED COMPLICATIONS OF ECT—"CRUSH SYNDROME": REPORT OF A FATALITY. *Ronald McNichol* 346
MULTIPLE SELF CONCEPTS AS EFFECTED BY MOOD STATES. *A. Z. Orzeck, C. McGuire and E. D. Longenecker* 349
REGRESSIVE EST, CHLORPROMAZINE, AND GROUP THERAPY IN TREATMENT OF HOSPITALIZED CHRONIC SCHIZOPHRENICS. *Peter D. King* 354
CLINICAL NOTES :
TP-21, A New Phenothiazine. *Sidney Cohen* 358
On Special Uses of Diphenhydramine Hydrochloride in the Somatic Therapy Ward of a Psychiatric Hospital. *Herbert Freed* 359
Note on Methoxydone (AHR-233). *Herman C. B. Denber* 360
Clinical Confirmation of Heistad's Predictions. *R. V. Edwards* 363
Senescent Memory Decline and Senile Amnestic Syndrome. *V. A. Kral* 361
Trifluoperazine in the Treatment of Psychotic Patients. *L. H. Rudy, F. Rinaldi, E. Costa, H. E. Himwich, W. Tuteur and J. Glotzer* 364
The Effect of Dextrose, Fat Emulsion and Amino Acids on the Rate of Disappearance of Alcohol in The Blood. *J. Schiller, R. Peck and M. Goldberg* 365
Deaner : An Adjunct for Treatment of Schizoid and Schizophrenic Patients. *Nina Toll* 366
CORRESPONDENCE :
Childhood Schizophrenia 368
COMMENT :
Dr. Blain : An Appreciation 369
Changing Roles of Hospitals for Psychiatric Treatment 371
President's Page 373
OFFICIAL REPORTS :
Report of the Coordinating Committee on Community Aspects of Psychiatry 374
NEWS AND NOTES 376
BOOK REVIEWS 379

NOVEMBER, 1958

CHILDHOOD PATTERNS PREDICTIVE OF ADULT SCHIZOPHRENIA : A 30-YEAR FOLLOW-UP STUDY. *Patricia O'Neal and Lee N. Robins* 385
AN APPROACH TO THE PROBLEM OF HOMOSEXUALITY IN THE MILITARY SERVICE. *Louis Jolyon West, William T. Doidge and Robert L. Williams* 392
IPRONIAZID CHEMOTHERAPY IN MELANCHOLIA. *Theodore R. Robie* 402
THE SEMANTICS OF PSYCHOTHERAPY. *Henry A. Davidson* 410
AN EXPLANATION FOR TRANSFERENCE CURE : ITS OCCURRENCE IN PSYCHOANALYSIS AND PSYCHOTHERAPY. *Lawrence C. Kolb and John Montgomery* 414
BRAIN DAMAGE, MENTAL RETARDATION AND CHILDHOOD SCHIZOPHRENIA. *Max Pollack* 422
SCHIZOPHRENIC SYMPTOMATOLOGY IN MENTALLY RETARDED CHILDREN. *Joseph Wortis* 429
STUDIES OF PARENTAL DEPRIVATION IN PSYCHIATRIC PATIENTS. *Ian Gregory* .. 432
TERMINATION OF CHLORPROMAZINE WITH SCHIZOPHRENIC PATIENTS. *W. W. Good, Mac Sterling and Wayne Holtzman* 443
SPECIFIC BEHAVIORAL CHANGES PRODUCED BY CHLORPROMAZINE IN CHRONIC SCHIZOPHRENIA. *C. Scott Moss, Ruth E. Jensen, William Morrow and Harold G. Freund* 449
TRILAFON IN THE TREATMENT OF CHRONICALLY PSYCHOTIC HOSPITALIZED PATIENTS. *Harry Cohen and Anna Z. Freireich* 452
ATROPINE COMA : A SOMATIC THERAPY IN PSYCHIATRY. *Gordon R. Forrer and Jacob J. Miller* 455
THE TREATMENT OF DEPRESSIVE STATES WITH G 22355 (IMIPRAMINE HYDROCHLORIDE). *Roland Kuhn* 459
CLINICAL NOTES :
Comparison of Effects of Normal and Schizophrenic Serum on Motor Performance in Rats. *Lila Ghent and Alfred M. Freedman* 465
Observations on the Comparative Effects on Tranquilizers on Patients Previously Treated with Prochlorperazine. *Werner M. Mendel* 466
An Investigation of the Validity and Reliability of the Akerfeldt Test. *Philip Gussion, Merle E. Day and Andrew Kuna* 467
CASE REPORTS :
Aortic Homograft Surgery and Electroshock. *R. K. Greenbank* 469
Addiction to Glutethimide (Doriden). *Arnold Sadwin and Robert S. Glen* 469
HISTORICAL NOTES :
Non-Restraint. *Naomi Raskin* 471
COMMENT :
Committee on International Relations, 1958 472
NEWS AND NOTES 473
BOOK REVIEWS 475
IN MEMORIAM :
Charles Englander, M.D., 1890-1958 480

DECEMBER, 1958

THE ACADEMIC LECTURE : THE WAY AHEAD. *J. R. Rees* 481
ROLE OF THE PSYCHIATRIST IN CRIMINAL TRIALS. *Joseph B. Cumming* 491
SOME CONSIDERATIONS REGARDING BASIC MECHANISMS OF POSITIVE AND NEGATIVE TYPES OF MOTIVATIONS. *John C. Lilly* 498
SWEDISH PSYCHIATRY. *Olof Kinberg* 505
POLITICS AND MENTAL HEALTH : SOME REMARKS APROPOS OF THE CASE OF MR. EZRA POUND. *Thomas S. Szasz* 508
THE NONPSYCHOTIC OFFENDER AND THE STATE HOSPITAL. *Reginald S. Rood* 512
LETTER-WRITING IN A MENTAL HOSPITAL. *Robert Sommer* 514
PATIENT REACTIONS TO THE "OPEN DOOR." *Nathan Wisebord, Herman C. B. Denber, Frederick B. Charatan and John H. Travis* 518
THE DOCTOR-PATIENT RELATIONSHIP AND ITS HISTORICAL CONTEXT. *Thomas S. Szasz, William F. Knoff and Marc H. Hollender* 522
PASTORAL-PSYCHIATRIC WORKSHOPS : THE ST. JOHN'S MENTAL HEALTH INSTITUTE. *Hyman Lippman, Francis Gerty and David A. Boyd, Jr.* 529
THE INFLUENCE OF PHRENOLOGY ON EARLY AMERICAN PSYCHIATRIC THOUGHT. *Eric T. Carlson* 535
A PROGRAM FOR THE PSYCHIATRIC TRAINING OF GENERAL PRACTITIONERS WHILE UTILIZING THEIR OFFICES AS AN OUTPATIENT FACILITY. *Jackson A. Smith, Laverne C. Strough, Cecil Wittson and Elaine Mansfield* 539
CLINICAL NOTES :
Tranquilizers and Energizers. *Joseph A. Barsa* 543
A Study of Iproniazid Treatment in Chronic Akinetic Patients. *John A. Belisle, Merlin C. Townley, V. L. Kozlowski and Pierre Martel* 544
The Schizophrenic Patients with an Increase of the Protein Content of the Cerebrospinal Fluid. *Walter L. Bruetsch* 545
Studies on Mescaline X : Psychological Changes Before and After Mescaline as Measured by the M.M.P.I. *Herman C. B. Denber and Alexander Van West* 546
A Clinical Note on Drug Induced Depression. *Carl H. Fellner* 547
A Preliminary Evaluation of Acepromazine (Plegicil). *John T. Ferguson* 548
The Prognostic Value of Placebo Response. *Leon D. Hankoff, Norbert Freedman and David M. Engelhardt* 549
CASE REPORTS :
Addiction to Glutethimide (Doriden). *George A. Rogers* 551
Liothyronine Treatment of Adult Cretin with Psychosis. *John L. Simon and Charles W. G. Anderson* 552
PRELIMINARY REPORTS :
JB-516 and Iproniazid (Marsilid). *Frederick Lemere* 554
OFFICIAL REPORTS :
Report of the Coordinating Committee on Professional Standards 555
CORRESPONDENCE :
The Security of the Womb 557
Non Restraint at Kalamazoo State Hospital 557
COMMENT :
The Death Penalty 559
NEWS AND NOTES 561
BOOK REVIEWS 566

JANUARY, 1959

THERAPEUTIC IMPLICATIONS OF DIFFERENTIAL EFFECTS OF NEW PHENOTHIAZINE COMPOUNDS. *F. A. Freyhan* 577
REVIEW OF PSYCHIATRIC PROGRESS 1958 :
Heredity and Eugenics. *Franz J. Kallmann* .. 586
Neuropathology, Endocrinology and Biochemistry. *O. R. Langworthy* 589
Electroencephalography. *W. T. Liberson* 593
Clinical Psychology. *Frederick Wyatt* 596
Physiological Treatment. *Joseph Wortis* 599
Psychosurgery. *Walter Freeman* 606
Child Psychiatry and Mental Deficiency. *Leo Kanner and Leon Eisenberg* 608
Clinical Neurology. *William H. Timberlake* 611
Alcoholism and Geriatrics. *Karl M. Bowman* 619
Epilepsy. *Walter J. Friedlander* 623
Mental Health in Education. *W. Carson Ryan* 628
Industrial Psychiatry. *Ralph T. Collins* 630
Psychiatric Nursing. *Lavonne M. Frey* 633
Rehabilitation and Occupational Therapy. *Franklin S. DuBois* 635
Psychiatric Social Work. *Margaret L. Newcomb* 641
Family Care and Outpatient Psychiatry. *Walter E. Barton* 642
Forensic Psychiatry. *Winfred Overholser* ... 645
Administrative Psychiatry. *J. Martin Myers and Lauren H. Smith* 647
Military Psychiatry. *Joseph S. Skobba* 649
Psychiatric Education. *Franklin G. Ebaugh and Robert H. Barnes* 650
Clinical Psychiatry and Psychotherapy. *Paul H. Hoch and Nolan D. C. Lewis* 654
COMMENT :
Effects of Nuclear Radiation 658
NEWS AND NOTES 659
BOOK REVIEWS 662

FEBRUARY, 1959

ADOLPH MEYER RESEARCH LECTURE : MODEL PSYCHOSES, THEIR HISTORY, RELEVANCY AND LIMITATIONS. *W. Mayer-Gross* 673

THE INFLUENCE OF FERTILITY CONTROL UPON PSYCHIATRIC ILLNESS. *Alan F. Guttmacher* 683

PATTERNS OF PSYCHIATRIC PROGRESS. *John MacIver and Frederick C. Redlich* 692

FACILITIES FOR PSYCHIATRIC EDUCATION : SURVEY OF PSYCHIATRIC DEPARTMENTS IN MEDICAL SCHOOLS. *Kenneth E. Appel and Manuel M. Pearson* 698

UNITY AND DIVERSITY OF SCHIZOPHRENIA : CLINICAL AND LOGICAL ANALYSIS OF THE CONCEPT OF SCHIZOPHRENIA. *Henri Ey* 706

A CLINICAL STUDY OF GILLES DE LA TOURETTE'S DISEASE (MALADIE DES TICS) IN CHILDREN. *Leon Eisenberg, Eduard Ascher and Leo Kanner* 715

THE COMMUNICATION OF SUICIDAL INTENT : A STUDY OF 134 CONSECUTIVE CASES OF SUCCESSFUL (COMPLETED) SUICIDE. *Eli Robins, Seymour Gassner, Jack Kayes, Robert H. Wilkinson, Jr. and George E. Murphy* 724

CLINICAL NOTES :

An Experimental Study of the Relative Effectiveness of Various Components of Electroshock Therapy. *Norman Q. Brill, E. Crumpton, S. Eiduson, H. M. Grayson, L. I. Hellman and Robert A. Richards* 734

Two-Year Fate Study of Pacatal-Treated Patients. *Paul E. Feldman* 736

Music Therapy for the Mentally Retarded. *Frederick Edward Kratter* 737

Narco-Stimulation. *Albert A. Laverne* 738

Clinical Results of Triflupromazine (Vesprin) in 132 Psychotic Patients. *Veronica M. Pennington* 740

EEG Changes With Promazine. *R. E. Reinert* 742

Preliminary Report on Triflupromazine (Vesprin). *Sanford H. Meyers and Benjamin Weiner* 743

CASE REPORTS :

Psychological Manifestations in a Patient With Chronic Sensory Deficits. *Edwin S. Robbins and Arnold J. Friedhoff* 744

Successful Termination of Prolonged Insulin Coma of Twenty Days With One Year Follow-Up. *James F. Suess and Eugene A. Cease* 745

Acute Transitory Psychotic Reaction Manifested After Radioactive Iodine Treatment For Hyperthyroidism. *Kurt Witton* 746

ADMINISTRATIVE NOTES :

Discharges From Mental Hospitals. *Sidney L. Sands* 748

HISTORICAL NOTES :

A Pre-Freudian Complex-Theory. *Ernest Harms* 751

OFFICIAL REPORTS :

Report of the Nominating Committee 753

CORRESPONDENCE :

Treatment Results of Psychoanalysis 754

Re : Agnosia, Etc. 754

Correction 755

COMMENT :

Some Drugs Used in the Treatment of Mental Disorders 756

NEWS AND NOTES 760

BOOK REVIEWS 764

IN MEMORIAM :

Harry J. Worthing, M.D., 1888-1958 767

MARCH, 1959

THE FOUNDING OF THE AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC. *Walter Freeman, Franklin G. Ebaugh and David A. Boyd, Jr.* 769

OPEN WARD POLICY AT ST. LAWRENCE STATE HOSPITAL. *Herman B. Snow* 779

OPEN DOOR POLICY ON AN ADOLESCENT SERVICE IN A PSYCHIATRIC HOSPITAL. *James M. Toolan and George Nicklin* ... 790

PSYCHIATRIC RESEARCH IN SPACE MEDICINE. *George E. Ruff and Edwin Z. Levy* 793

THE SOCIAL CONDITIONS OF PSYCHOTHERAPY IN INDONESIA. *R. Slamet Iman Santoso* 798

RELEASABLE HISTAMINE LEVELS AND HISTAMINE TOLERANCE IN TISSUES OF 291 PSYCHOTIC PATIENTS. *Louise H. Jodrey and Jackson A. Smith* 801

NEW CONCEPTS OF PSYCHIATRIC CARE WITH SPECIAL REFERENCE TO THE DAY HOSPITAL. *Charles E. Goshen* 808

CLINICAL NOTES :

Trifluoperazine in the Treatment of Chronic Schizophrenics. *Joseph A. Barsa, John C. Saunders and Nathan S. Kline* 812

Seasonal Variation in the Incidence of Severely Crippling Mental Disorders II : Alcoholism. *Nelson J. Bradley and Rubel J. Lucero* 813

The Use of Glucagon in the Termination of Therapeutic Insulin Coma. *Manfred Braun and Milford Parker* 814

Sedation in Electroencephalography. *C. H. Carter* 815

A Rapid Test for Cerebrospinal Fluid Protein Determination. *Erwin M. Jacobs* 816

Miosis Following Administration of Chlorpromazine and Related Agents. *Saran Jonas* .. 817

Taraxein, Fact or Artifact? *Malcolm Siegel, G. Donald Niswander, Ernest Sachs, Jr., and Dino Stavros* 819

Proclorperazine in the Treatment of the Schizophrenias. *Veronica M. Pennington* 820

Use of Trifluoperazine in Chronic Negro Schizophrenics. *Marshall C. Sexton* 821

The Treatment of Chronic Alcoholics with

Citrated Calcium Carbimide (Temposil). *Jackson A. Smith, Elaine Mansfield and Howard D. Herrick* 822
Promazine-Iproniazid : A Brief Report. *Douglas Vann* 824
CASE REPORTS :
Modified ECT Using Succinylcholine Followed by Prolonged Apnea. *W. Hamelberg* 826
COMMENT :
World Federation For Mental Health Annual Meeting 828
NEWS AND NOTES 830
THE AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC. 833
BOOK REVIEWS 835

APRIL, 1959

REPORT OF WORLD HEALTH ORGANIZATION STUDY GROUP ON SCHIZOPHRENIA, GENEVA, SEPTEMBER 9-14, 1957 865
THE AMERICAN MELTING POT : ITS MEANING TO US. *J. M. Radzinski* 873
TEACHING THE PRINCIPLES OF AMBULANT PSYCHOTHERAPY. *C. H. Hardin Branch and Joy W. Ely* 887
DAY HOSPITALS FOR SEVERLY DISTURBED SCHIZOPHRENIC CHILDREN. *Alfred M. Freedman* 893
A SERIOUS AND LITTLE-RECOGNIZED DEFICIT IN POST-WAR PSYCHIATRIC RESIDENCY TRAINING. *Robert T. Morse* 899
THE SYMPTOMATIC RELIEF OF ANXIETY WITH MEPROBAMATE, PHENOBARBITAL AND PLACEBO. *E. H. Uhlenhuth, Arthur Canter, John O. Neustadt and Henry E. Payson* 905
THE CHARACTERISTICS OF THOUGHT DISTURBANCES AS RELATED TO ELECTROENCEPHALOGRAPHIC FINDINGS IN CHILDREN AND ADOLESCENTS. *Margaret A. Kennard* 911
PSYCHOGENIC HYPERSOMNIA. *Norman P. Goldstein and Mary E. Giffin* 922
PHILADELPHIA METROPOLITAN PSYCHIATRY IN 1959. *Earl D. Bond* 929
CLINICAL NOTES :
Withdrawal From Neuroleptic Drugs. *George W. Brooks* 931
Drugs—Single or Multiple Daily Dosage? *Philip Haden* 932
Serum Calcium Levels After ECT Modified with Scoline. *Hugh Jarvie and Lily Mulligan* 933
Preliminary Observations on Trifluoperazine in Schizophrenia. *Eliere J. Tolan and H. H. Peppel* 935
A Clinical Trial of Monosodium Glutamate (L-Glutavite®) on Hospitalized Elderly Male Psychotic Patients. *Robert L. Spitzer* 936
Treatment of Bladder and Bowel Incontinence in Elderly Mental Patients With Nor-Eth-Androlone (Nilevar). *Maurice Vaisberg, Calvin Michael and John C. Saunders* 938
Clinical Report on Methoxypromazine : A New Phenothiazine. *E. Gosline, C. J. Walters and J. C. Saunders* 939
Clinical Uses of Deanol (Deaner) : A New Type of Psychotropic Drug. *John D. Moriarty and John C. Mebane* 941
ADMINISTRATIVE NOTES :
Patient Government. *M. G. Jacoby* 943
COMMENT :
First National Meeting of State Commissioners of Mental Health 945
Psychiatric Training Programs For General Practitioners 946
NEWS AND NOTES 947
BOOK REVIEWS 952
IN MEMORIAM :
Edward A. Strecker, M.D., 1886-1959 959

MAY, 1959

PATIENTS' EXPECTANCIES AND RELEARNING AS FACTORS DETERMINING IMPROVEMENT IN PSYCHOTHERAPY. *Jerome D. Frank, Lester H. Gliedman, Stanley D. Imber, Anthony R. Stone and Earl H. Nash* 961
CONTROL OF BEHAVIOR AS A CRUCIAL FACTOR IN INTENSIVE PSYCHIATRIC TREATMENT IN AN ALL ADOLESCENT WARD. *Willard J. Hendrickson and Donald J. Holmes* 969
PROBLEMS IN ESTABLISHING AND MAINTAINING PSYCHIATRIC UNITS IN GENERAL HOSPITALS. *A. E. Bennett* 974
THE PSYCHIATRIC EMERGENCY CLINIC : A FLEXIBLE WAY OF MEETING COMMUNITY MENTAL HEALTH NEEDS. *M. Donald Coleman and Israel Zwerling* 980
REPETITION OF VERBAL SIGNALS : BEHAVIOURAL AND PHYSIOLOGICAL CHANGES. *D. Ewen Cameron, Leonard Levy, L. Rubenstein and R. B. Malmo* 985
PERMISSIVENESS—ITS DEFINITION, USEFULNESS AND APPLICATION IN PSYCHOTHERAPY. *Jacob E. Finesinger and Sheppard G. Kellam* 992
DIAGNOSIS, TREATMENT AND RESULTS IN ANOREXIA NERVOSA. *James H. Wall* .. 997
FEAR, HOSTILITY, REALITY. *Eugen Kahn* 1002
SUICIDE AND MEDICAL RESPONSIBILITY. *David J. Vail* 1006
MARSILID (IPRONIAZID) AND ELECTROSHOCK. *Alfred Gallinek* 1011
THE ROLE OF THE FATHER IN FAMILIES WITH A SCHIZOPHRENIC PATIENT. *Murray Bowen, Robert H. Dysinger and Betty Basamania* 1017
THE SOCIAL-LEGAL COUNSELLING BOARD : AN EXPERIMENT IN THE INTERDIS-

CIPLINARY APPROACH INVOLVING LAW, PSYCHIATRY, AND SOCIAL WORK. *John Donnelly, C. Gordon Edgren, Robert Satter and Mary P. Ryan* 1021

CLINICAL NOTES :

Cycloserine as an Antidepressant Agent. *George E. Crane* 1025

Comparison of Proclorperazine and Chlorpromazine in Hospitalized Chronic Schizophrenics. *Peter D. King and Walter Weinberger* 1026

Intensive Short-Term Therapy in a Day Care Facility For Control of Recurrent Psychotic Symptoms. *Else B. Kris* 1027

Pre-Admission Drug Treatment of State Psychiatric Hospital Patients. *Albert A. Kurland, Gertrude L. Nilsson and Thomas E. Hanlon* 1028

Drug Induced Tranquilization vs. Drug Induced Agitation. *Hilda Muszyński and Earl R. Maffett* 1029

Experience with Trifluoperazine in 110 Female Schizophrenics. *Walter Kruse* 1031

Clinical Efficacy of Proclorperazine (Compazine) in Mental Illness. *F. Regis Riesenman and Manson B. Pettit* 1032

Electrocardiography as a Routine Admission Procedure in a Large Neuropsychiatric Hospital : An Evaluation. *Philip H. Ross, John R. Shawver and Stanley M. Tarnowski* ... 1034

HISTORICAL NOTES :

Pierre M. F. Janet 1036

COMMENT :

California Assembly Bill 437 : Legal Insanity 1038

CORRESPONDENCE :

Pound, Politics and and Mental Health 1040

Indoklon Combined With Pentothal and Anectine 1041

Effects of Nuclear Radiation 1042

NEWS AND NOTES 1046

BOOK REVIEWS 1048

IN MEMORIAM :

Edwin Garvin Zabriskie, M.D., 1874-1959 .. 1055

JUNE, 1959

PSYCHIATRIC STUDY OF A MASS MURDERER. *James A. V. Galvin and John M. MacDonald* 1057

POST-ENCEPHALITIC BEHAVIOR DISORDER—A FORGOTTEN ENTITY : A REPORT OF 100 CASES. *Sol Levy* 1062

A CRIMINOLOGIST LOOKS AT PRIVILEGE. *Austin MacCormick* 1068

THE PROBLEM OF PRIVILEGE : HISTORICAL AND JURIDICAL SIDELIGHTS. *Henry Root Stern, Jr.* 1071

GROWTH OF PSYCHIATRISTS DURING AND AFTER RESIDENCY TRAINING : AN OBJECTIVE EVALUATION. *Herbert C. Modlin, William Benjamin, S. Burritt Lacy, Bernard H. Hall and Joseph Satten* 1081

CURRENT THEORETICAL CONCEPTS IN PSYCHOSOMATIC MEDICINE. *Harold I. Kaplan and Helen S. Kaplan* 1091

DEVELOPMENTAL AND SEXUAL FACTORS IN WOMEN : A COMPARISON BETWEEN CONTROL, NEUROTIC AND PSYCHOTIC GROUPS. *George Winokur, Samuel B. Guze and Eric Pfeiffer* 1097

ON THE DYNAMICS OF THE MANIC-DEPRESSIVE PERSONALITY. *Robert W. Gibson, Mabel B. Cohen and Robert A. Cohen* 1101

SYMPOSIUM ON SPACE PSYCHIATRY. *Compiled by Robert L. Williams* 1108

CLINICAL NOTES :

A Rapid Urine Color Test For Triflupromazine (Vesprin). *Fred M. Forrest, Irene S. Forrest and Aaron S. Mason* 1114

Clinical Experiences With a New Phenothiazine. *Herman C. B. Denber, Paul Rajotte and Dorothy Kauffman* 1116

Preliminary Report on Imipramine (Tofranil). *Paul E. Feldman* 1117

Psychiatric Response of Geriatric-Psychiatric Patients to Mellaril (TP-21 Sandoz). *Leopold Judah, Oddist Murphree and Lloyd Seager* 1118

Catatonic-Like States Following Phenothiazine Therapy. *Rupert H. May* 1119

The Usefulness and Effectiveness of Equanil® in Children. *Kurt C. Rawitt* 1120

Experiences with P-M, G-M Succinylcholine Modified Electroconvulsive Therapy. *Allan Z. Schwartzberg* 1121

CASE REPORTS :

Acute Toxic Hypertension Due to Triflupromazine : Report of a Case. *Harry F. Darling* 1123

Death Due to Massive Overdose of Meprobamate. *Isadore Kamin and Donald A. Shaskan* 1123

Prolonged Hypotension Due to Chlorpromazine. *W. J. Stanley* 1124

COMMENT :

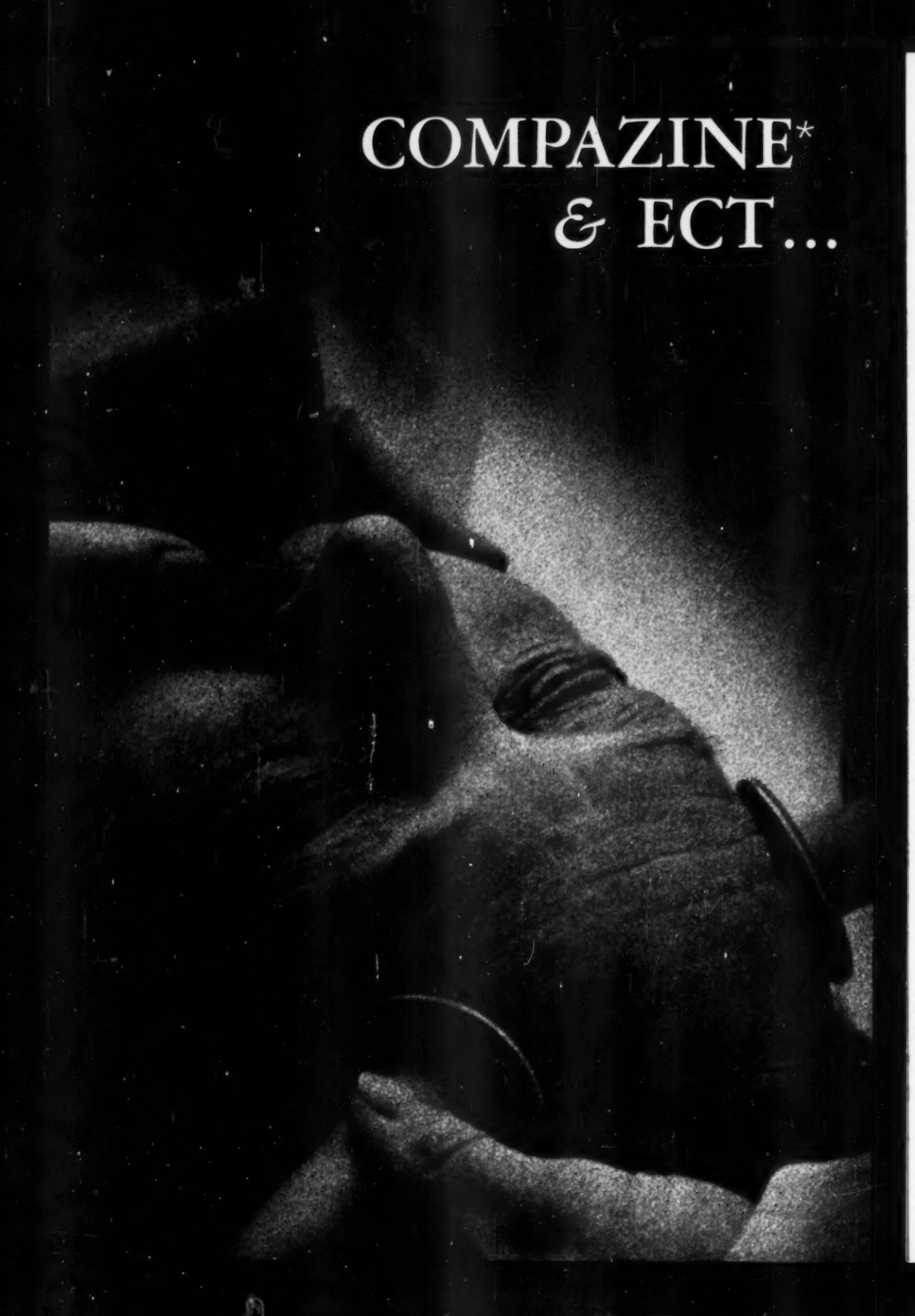
International Conference on the Insulin Treatment in Psychiatry 1127

NEWS AND NOTES 1128

ANNUAL INDEX :

Subject Index 1130

Author Index 1143


COMPAZINE*
& ECT...

EFFECTIVE AND SAFE COMBINATION

• Wilcox[1] reported that 26 of 28 patients who received combined 'Compazine' and ECT showed marked improvement. Also, these patients "were more comfortable, less apprehensive and tense, and more accessible to counselling than those given ECT alone. No episodes of vasomotor collapse or other untoward reactions occurred with combined ['Compazine'-ECT] therapy."

• In a controlled study, Guido[2] reported 'Compazine' to be a useful adjunct to ECT in that it allayed patients' anxiety, tension and apprehension concerning the treatment. The average drop in blood pressure following ECT was less and more gradual in the 'Compazine'-treated group than in the control group.

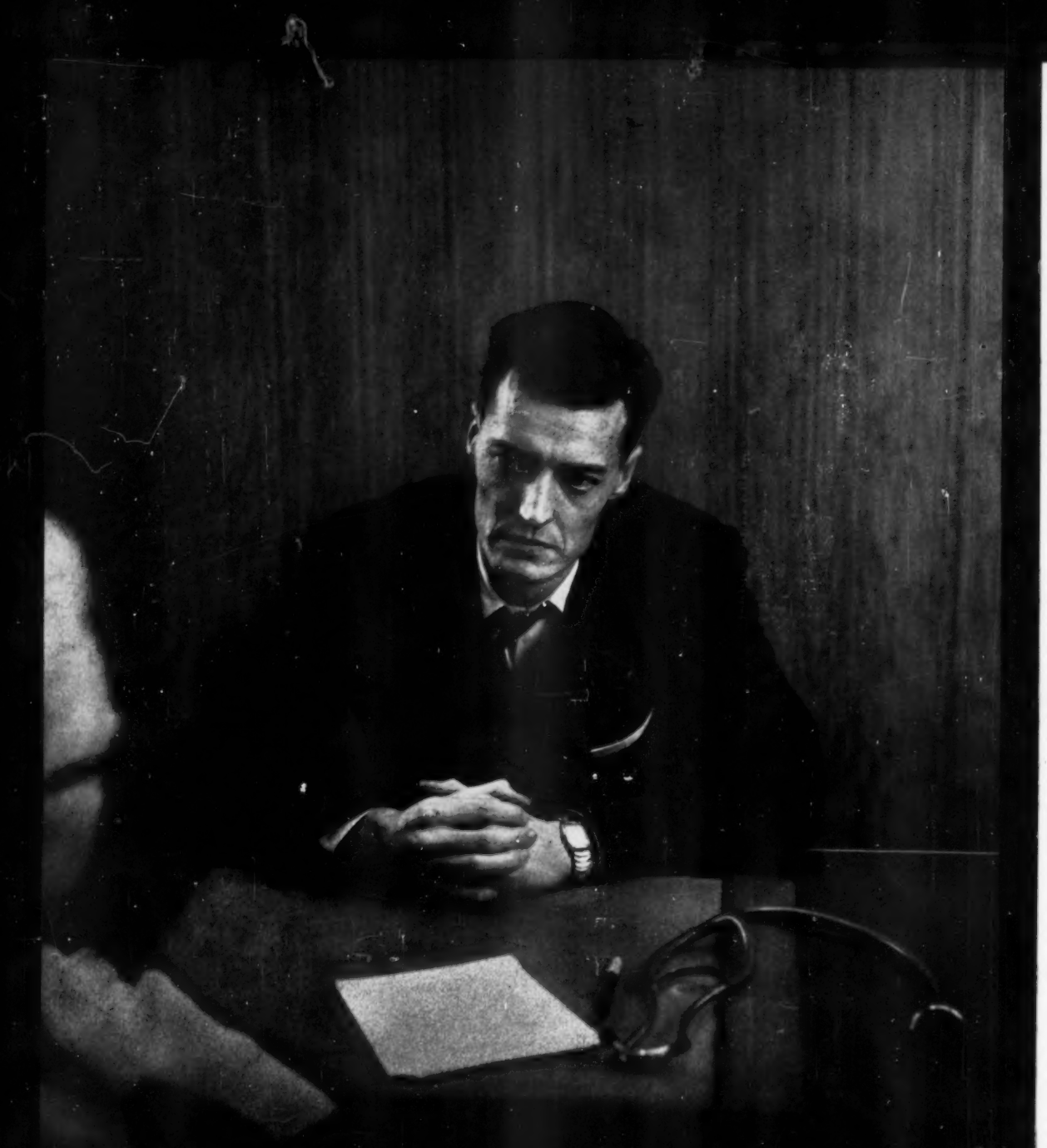
• Goldman[3] has stated: "The use of electroshock with patients under treatment with ['Compazine'] has in our experience been entirely safe and not associated with any evidence of increased danger from the treatment."

1. Wilcox, F.: Prochlorperazine in Hospitalized and Private Psychiatric Patients, Dis. Nerv. System *19*:118 (March) 1958.

2. Guido, J.A.: The Use of 'Compazine' with Electro-Convulsive Therapy, in Prochlorperazine in the Treatment of Mental Disorders, New York, Physicians Postgraduate Press, 1957.

3. Goldman, D.: Effect of Prochlorperazine ('Compazine') on Psychotic States, Psychiatric Research Reports, No. 9, of the American Psychiatric Association, March, 1958.

SMITH KLINE & FRENCH LABORATORIES



HELPS YOU OBTAIN EARLY RESULTS IN DEPRESSION

- *Helps improve mood and outlook* . . . from the beginning of psychotherapy. Rapidly relieves crying spells, apprehension, rumination, insomnia.
- *Facilitates psychotherapy* . . . patients become more readily accessible and communicative. Improves possibility of recovery without electroshock.

▲Deprol▲†

MARKED IMPROVEMENT WITH ▲Deprol▲ REPORTED IN THREE PSYCHIATRIC STUDIES

	STUDY #1	STUDY #2	STUDY #3
NUMBER OF PATIENTS	135	35	52
TYPE OF PATIENTS	Depressed, chronic psychotic patients, mostly schizophrenic (hospitalized)	26 psychotic depressions, manic-depressive and involutional; 9 neurotic depressions (private practice).	36 involutional depressions, av. age 77 (custodial patients in nursing home); 16 reactive depressions, av. age 65 (private practice).
DOSAGE	1-4 tabs. q.i.d. (av. 2 tabs. q.i.d.)	1-3 tabs. q.i.d.	1-2 tabs. t.i.d. or q.i.d.
DURATION OF TREATMENT	1 wk.-17 mos., (av. 1.8 mos.)	1-25 wks. (av. 8 wks.)	6-22 wks.
RESULTS	Substantial improvement in 41%; some improvement in an additional 39%.[1]	Complete or social recovery in 57%.[2]	Good results in 78% of involutional depressions and in 69% of reactive depressions.[3]

ADVANTAGES OF ▲Deprol▲

Antidepressant action does not produce excessive stimulation, jitters, insomnia

Restores normal sleep without depression-producing aftereffects

Improves mood without depressing appetite

DOCUMENTED SAFETY[1-4]

Deprol has not produced hypotension or liver toxicity

Does not interfere with other drug therapies, or with sexual function

Can be used in hypertension, and with unstable personalities

Side effects are minimal

Composition: Each light-pink, scored tablet contains 1 mg. 2-diethylaminoethyl benzilate hydrochloride (benactyzine HCl) and 400 mg. meprobamate.

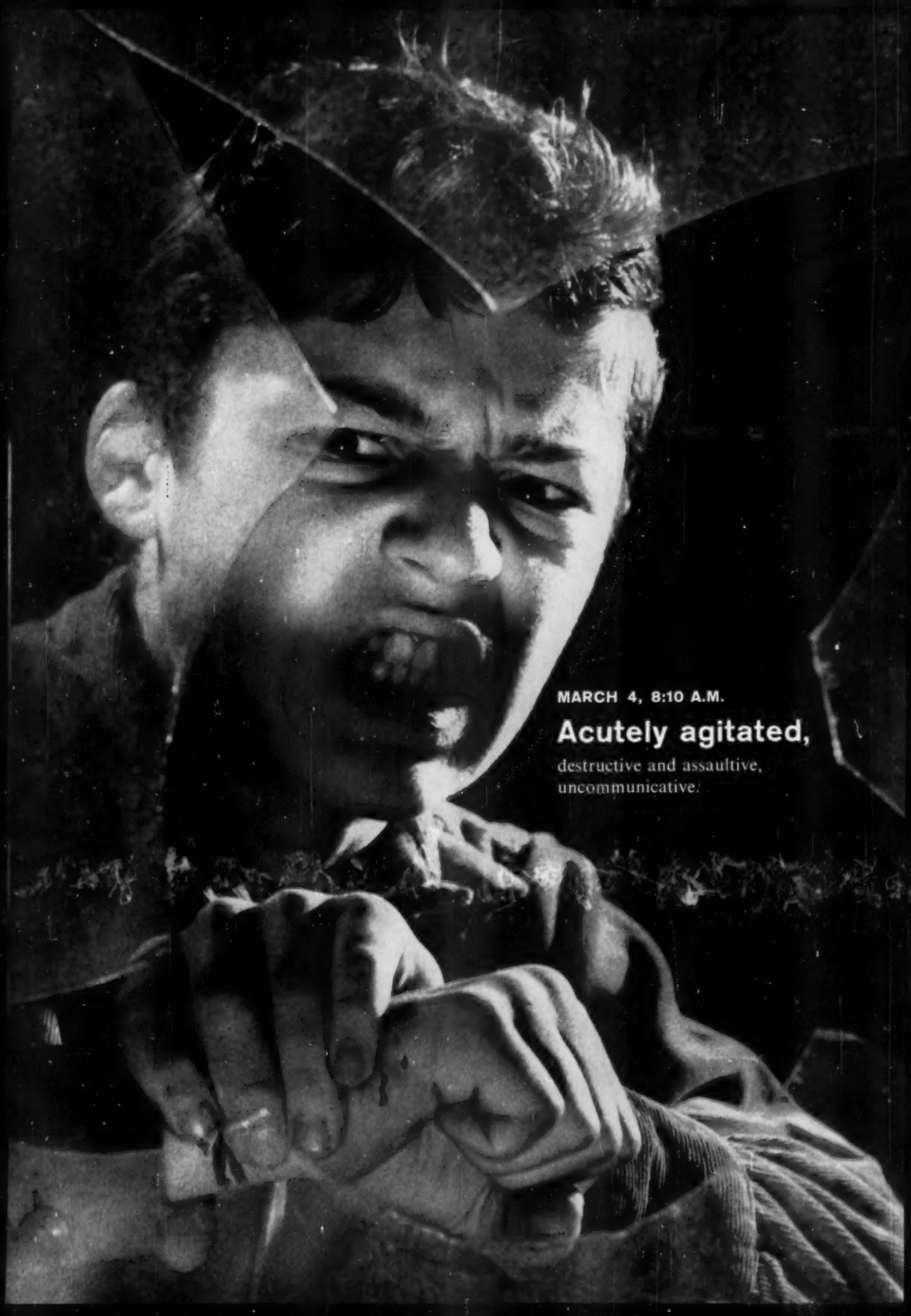
Dosage: Usual starting dose is 1 tablet q.i.d. When necessary, this dose may be gradually increased up to 3 tablets q.i.d.

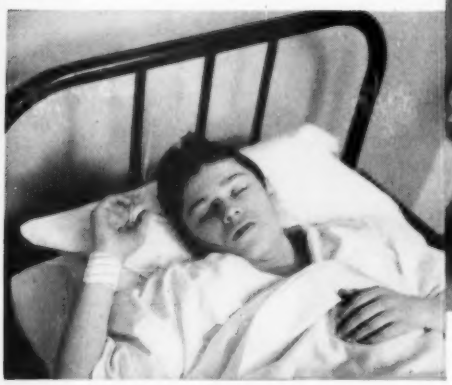
References:

1. Pennington, V.M.: The use of Deprol in chronic psychotic patients. Am. J. Psychiat. 115:250, Sept. 1958. **2.** Alexander, L.: Chemotherapy of depression—Use of meprobamate combined with benactyzine (2-diethylaminoethyl benzilate) hydrochloride. J.A.M.A. 166:1019, March 1, 1958. **3.** Settel, E.: Treatment of depression in the elderly with a meprobamate-benactyzine hydrochloride combination. Submitted for publication, 1958. **4.** Personal communications from physicians; in the files of Wallace Laboratories.

®WALLACE LABORATORIES
New Brunswick, N. J.

CD-8680 †TRADE-MARK


MARCH 4, 8:10 A.M.
Acutely agitated,
destructive and assaultive,
uncommunicative.



MARCH 4, 10:00 A.M.
SPARINE, I.V., has been given.
Patient in light sleep.
Can be awakened readily,
and responds to questioning.

MARCH 5, 2:00 P.M.
Receiving oral SPARINE.
Quiet but alert. Contrite
about smashed window.

MARCH 8, 9:00 A.M.
Still on oral
SPARINE, maintenance
dosage. Ready
for psychotherapy.

SPARINE quickly controls acute psychotic episodes, then maintains control while definitive psychiatric treatment is provided. SPARINE facilitates accessibility, speeds rehabilitation, simplifies care.

SPARINE acts most rapidly by intravenous injection; for effective maintenance, the oral or intramuscular route is usually used. It is well tolerated in all three methods of administration. *Comprehensive literature supplied upon request.*

Sparine® HYDROCHLORIDE

Promazine Hydrochloride, Wyeth

INJECTION TABLETS SYRUP

Wyeth
Philadelphia 1, Pa.

Enuresis

In the physically normal older child, persistent bed-wetting is often the revealing symptom of an anxiety state. Thus, the alleviation of psychic tensions is an important step in promoting nocturnal sphincter control. After using EQUANIL as a management adjunct, McClendon[1] reports: "Out of the sixty cases followed . . . there have been forty-one complete successes, ten partial successes and nine failures. . . . These cases were selected because of the failure of all other measures. . . ."

1. McClendon, S.J.: Arch. Pediat. 75:101 (March) 1958.

PHYSICIANS' COUNCIL FOR INFORMATION ON CHILD HEALTH

CONFORMS TO CODE FOR ADVERTISING

Equanil®

Wyeth

MEPROBAMATE

Philadelphia 1, Pa. Relieves tension—mental and muscular

DISCHARGED

The ultimate goal of every psychiatrist is to see his hospitalized patients discharged. Pacatal can help in attaining this objective. Pacatal is ideal for patients with a promising future—those who have been hospitalized less than two years—because it keeps them accessible, ambulatory, and alert. On Pacatal, patients display a greater warmth of personality and willingness to cooperate. They are more responsive to psychotherapy and are able to establish a better relationship within their environment.

In a one-year follow-up study of 67 schizophrenic patients treated with Pacatal, Vorbusch[1] found that 23 (or 34 per cent) were able to leave the hospital, and only 6 had to return for further treatment. A similar report by Feldman[2] noted a 36 per cent release rate in Pacatal-treated patients, with only 9 per cent returning from parole.

Dosage: Institutionalized patients—range 100 to 500 mg. per day (average 300 mg.). Usually begin with 50 mg. b.i.d., increase by 50 mg. every 5 to 7 days. *Ambulatory patients*—symptoms usually controlled with 25 mg. 3 or 4 times daily.

Supplied: 25 and 50 mg. tablets in bottles of 100 or 500. Available in 2 cc. ampuls (25 mg./cc.) for parenteral use.

References: 1. Vorbusch, H. J.: J. Clin. & Exper. Psychopath., (Jan.-Mar.) 1959
2. Feldman, F. E.: Am. J. Psychiat. *115*:736 (Feb.) 1959

for normalization . . . not sedation

Pacatal®

brand of mepazine

WARNER CHILCOTT

MORRIS PLAINS, N. J.

REITER MODEL SOS PROVIDES FOR ALL THE FOLLOWING TECHNIQUES:

CONVULSIVE THERAPY (maximum convulsive and therapeutic efficiency) • **NON-CONVULSIVE THERAPIES** • **ELECTRO-SLEEP THERAPY** • **FOCAL TREATMENT** (unilateral and bilateral) • **MONO-POLAR TREATMENT** (non-convulsive or convulsive) • **BARBITURATE COMA** (and other respiratory problems) • **MILD SEDAC** (without sedation) **DEEP SEDAC THERAPY** (with sedation) • **PRE-CONVULSIVE SEDAC** (for anxious patients who resist **EST**) • **POST-CONVULSIVE SEDAC** (for deep sleep) • **NEUROLOGICAL CONDITIONS** • **MEASUREMENT PROCEDURES**

INTEGRATED EVALUATION

The key question in the acceptance of a student at Devereux is, "Will the child profit by being in our care?" A thorough, integrated evaluation helps answer this question.

First in importance is the detailed history reported by the referring physician. Then the clinical staff at Devereux gives the student complete psychiatric, psychological, and medical evaluations. With the child assigned temporarily to a small home-school unit, this study covers his inter-personal reactions and his response to preliminary therapy.

Upon the outcome of this integrated evaluation, which is reported to the parents and the referring agent, depends the final acceptance of the child and the program of therapy that lies ahead.

MEDICAL-PSYCHIATRIC STAFF

J. CLIFFORD SCOTT, M.D.
WALTER M. UHLER, M.D.
AURELIO BUONANNO, M.D.
CHARLES M. CAMPBELL, JR., M.D.
FRED J. CULEMAN, M.D.
RUTH E. DUFFY, M.D.
WILLIAM F. HAINES, M.D.
G. HENRY KATZ, M.D.
Chief Psychiatric Consultant

HERBERT H. HERSKOVITZ, M.D.
ROBERT L. HUNT, M.D.
RICHARD H. LAMBERT, M.D.
LEONARDO MAGRAN, M.D.
JACOB S. SHERSON, M.D.
ALBERT S. TERZIAN, M.D.
LANCE WRIGHT, M.D.
JOSEPH J. PETERS, M.D.
Psychiatric Consultant

THE DEVEREUX FOUNDATION

A nonprofit organization — *Founded 1912*
Santa Barbara, California — *Devon, Pennsylvania*

SCHOOLS
COMMUNITIES
CAMPS
TRAINING
RESEARCH

HELENA T. DEVEREUX
Administrative Consultant

EDWARD L. FRENCH, Ph.D.
Director

WILLIAM B. LOEB
Treasurer

Professional inquiries should be addressed to John M. Barclay, Director of Development, or Charles J. Fowler, Registrar, Devereux Schools, Devon, Pennsylvania; western residents address Keith A. Seaton, Registrar, Devereux Schools in California, Santa Barbara, California.